

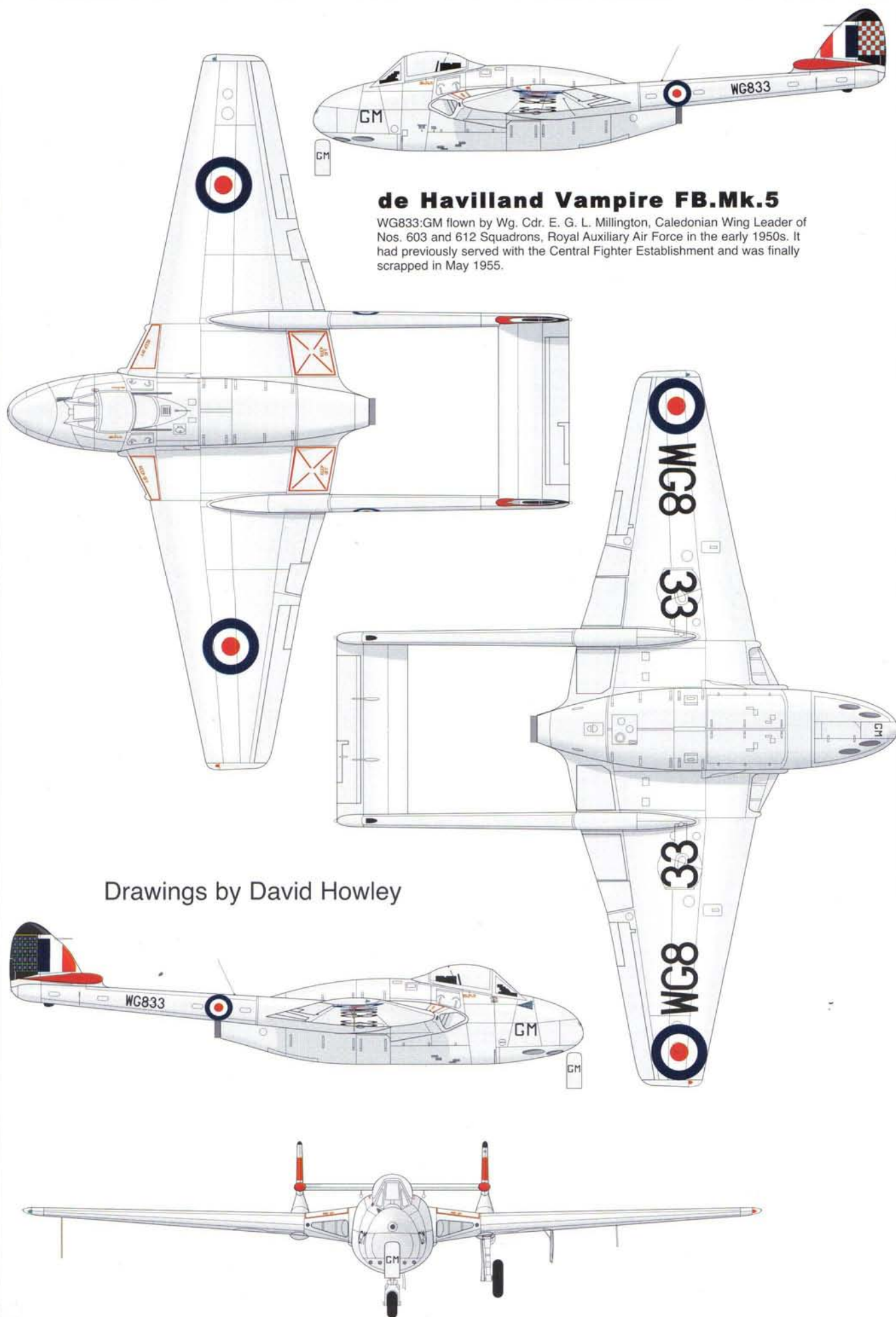
WARPAINT SERIES No.27

de Havilland **VAMPIRE**

By W. A. HARRISON

The first four Vampire F.Mk.3s for the Royal Norwegian Air Force went to C Flight, No. 331 Squadron at Gardermoen for evaluation and were then passed on to No. 336 Squadron. Deliveries began in April 1948 and were followed by a total of 20 plus another 36 FB.52s. B-AD in the foreground was originally VV188 in the RAF and flew a total of 626.55 hours before being placed in store at Vaernes in September 1954 as F-84 Thunderjets began to replace Vampires in RNorAF service. (RNorAF picture)





de Havilland Vampire FB.Mk.5

WG833:GM flown by Wg. Cdr. E. G. L. Millington, Caledonian Wing Leader of Nos. 603 and 612 Squadrons, Royal Auxiliary Air Force in the early 1950s. It had previously served with the Central Fighter Establishment and was finally scrapped in May 1955.

Drawings by David Howley

By W. A. Harrison



de Havilland VAMPIRE

Air Ministry Specification E.6/41 was a first attempt to move the British aircraft industry and the RAF into the new era of jet propulsion. Earlier in 1941 the British Ministry of Aircraft Production (MAP) had invited the de Havilland Aircraft Company to examine the problems of designing and building not only a jet fighter aircraft, but also the engine to power it as well.

Before receiving the specification some senior de Havilland staff had been up to RAF Cranwell to see the Gloster E.28/39 fly. The results of any work already done on the development of new jet aircraft and engines was passed to de Havilland's design department, and it was obvious that the work done so far by Frank Whittle was included. Eventually it was decided that for simplicity and ease of production, a single engine would be more suitable, even though existing or projected jet engines were too small to give a fighter adequate range and striking power. A thrust rating of at least 3,000 lb at sea level would be necessary to give a performance sufficiently higher than the latest Spitfire, or other types then entering service, to justify branching out on new fighter technology at this phase of the war.

The minimum size of a fuselage pod had to be wide enough to house a pressurised cockpit, fuel and guns and allow an engine diameter of 50 inches. It was appreciated that air

intakes to handle 100 tons of air per hour would be a major design problem, and that penalties in lost thrust, weight and increased drag would increase with every foot added to any exhaust system.

It was decided to go for an experimental single-seat jet fighter capable of speeds around 500 mph, a service ceiling of not less than 48,000 ft and provision of four 20mm cannon in the nose. In an unprecedented move by MAP, de Havilland received approval to attempt the design of both airframe and engine. Normally the Ministry thought it too risky to let one company build both new designs, in case either failed, and preferred to have at least the airframe or

Fine study of Vampire F.1 TG330, which spent all its working life as a test aircraft between de Havilland and Boscombe Down. It retained the angular fin and rudder shape with the pitot head on the port fin. On LZ548 it had been on the starboard fin. (BAe)

engine developed by a separate supplier.

Under the code-name 'Spider Crab' (and thank goodness it was only a code-name!), the design of the new fighter went ahead with permission to build a mock-up coming early in 1942. The single engine was mounted inside a streamlined nacelle structure based on the well proven Mosquito plywood sandwich and balsa fill. This form of construction had been developed by de



Wooden mock-up of the first Spider-Crab, later renamed Vampire, taken in 1943. The amount of wood content is quite marked. The square opening on upper left was the port ammunition bay. It even had wooden wheels! (BAe Systems plc)

First prototype Spider Crab LZ548/G, which was flown on 20 September 1943 by Geoffrey de Havilland Jnr. Powered by a 2,700lb thrust Halford H.1 engine it was airborne for 30 minutes during which time the test pilot found some instability above 400 mph. Note the original tall fin and rudder. (BAe)

Havilland in 1937 for the four-engined Albatross airliner and later used in the Mosquito and Hornet.

The fuselage nacelle was constructed in two halves, with each half fitted with the necessary equipment and joined along the centre line. This was then covered in fabric as far as the engine bulkhead, providing a smooth overall finish. Also in the nacelle was the pilot's cockpit with a rearward sliding bubble canopy, and beneath the cockpit were mounted the specified four 20mm cannon. The double-skin transparent canopy had a space between layers of perspex containing chemically dried air to prevent misting. The bullet-proof windscreen was also built up in a similar sandwich construction. Wings were of orthodox stressed metal skin with principle loads carried by a single main spar, joined by plate ribs to a false spar carrying the flaps, dive brakes and round-nose ailerons. The wings also incorporated the air intake ducts at the inboard leading edge, the

Right: LZ551/G was the second Spider Crab to fly, on 17 March 1944 with revised shape fin and rudders. It was to become a prototype Sea Vampire F.10 and fitted with an arrestor hook made the first jet landing on a carrier, *HMS Ocean*, on 3 December 1945. It flew many trials before being sold back to de Havilland on 20 September 1947 and currently resides in the FAA Museum at Yeovilton. (Crown copyright) Below: Up from Hatfield TG370 in the post-war overall silver finish. It joined No. 501 Squadron before being relegated to training duties with Nos. 102 and 103 Flying Refresher Schools. (BAe)



roots of the tail booms and attachments for the outward-retracting main undercarriage. Twin tail booms meant the jet efflux was clear of any airframe structure, and the elimination of primary fuselage structure aft of the wing spars allowed the engine to be faired in entirely by removable panels giving maximum accessibility for servicing. High velocity ducts in the wing roots provided

small but efficient air intakes allowing maximum ram effects with minimum aerodynamic interference. The booms, wings and tail unit were manufactured in flush-riveted aluminium alloy.

It was from this point, April 1941, that the preliminary layout was agreed, but more urgent Mosquito war production forced the project into the background. It was



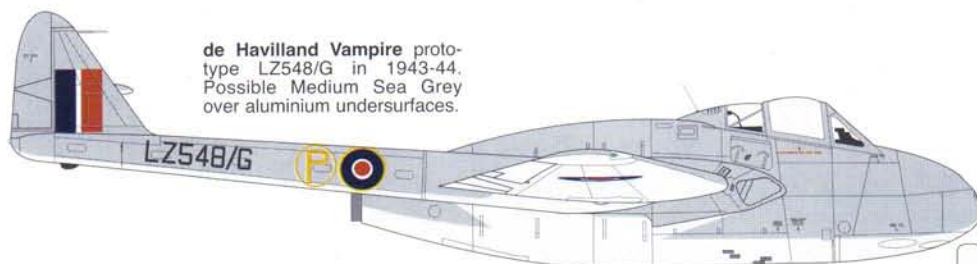
de Havilland Vampire camouflage and markings

VAMPIRE COLOUR KEY

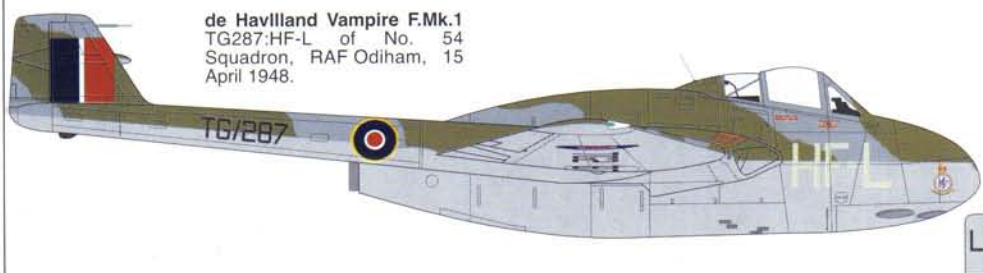
Black	White	Yellow	R. Red (Dull)	R. Red	R. Blue	Aluminium	Dk. Green	Dark Earth	Dark Sea Grey	Ocean Grey	Light Stone	Sky
Extra Dark Sea Grey	Medium Sea Grey	PRU Blue	Azure Blue	Dayglo Red	Dayglo Orange	Sweden Blue-Grey	Sweden Dark Green	Sea Blue Gloss				

Drawings by David Howley

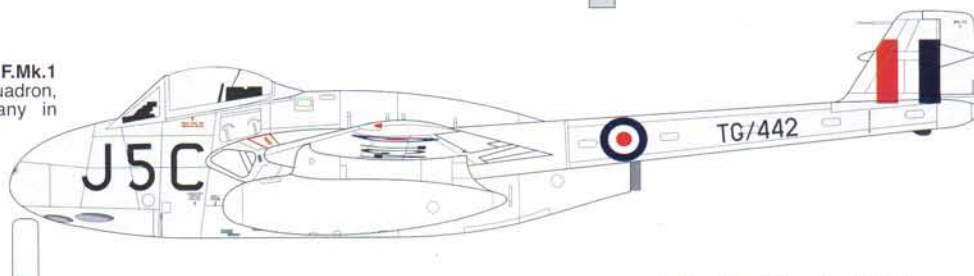
de Havilland Vampire proto-type LZ548/G in 1943-44. Possible Medium Sea Grey over aluminium undersurfaces.



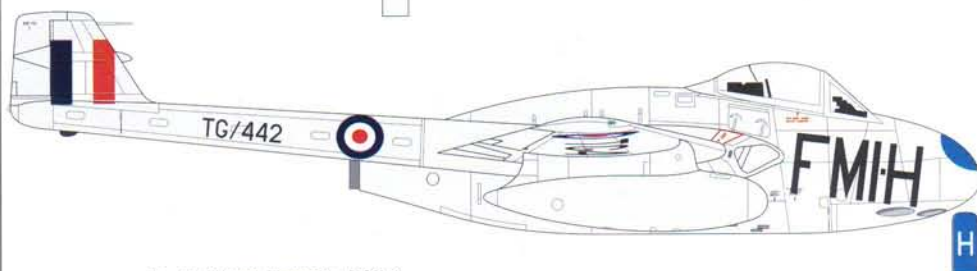
de Havilland Vampire F.Mk.1 TG287:HF-L of No. 54 Squadron, RAF Odiham, 15 April 1948.



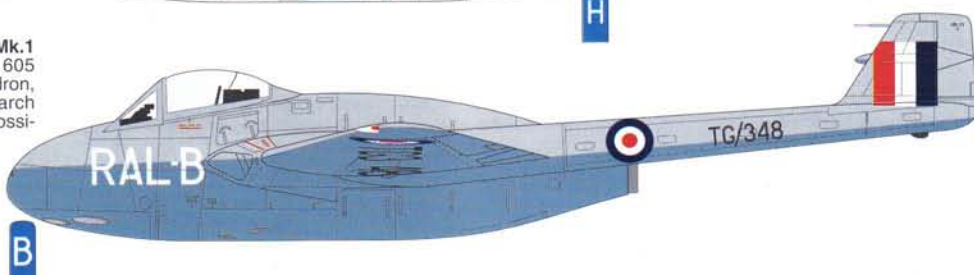
de Havilland Vampire F.Mk.1 TG442:J5C of No. 3 Squadron, RAF Gutersloh, Germany in 1949.



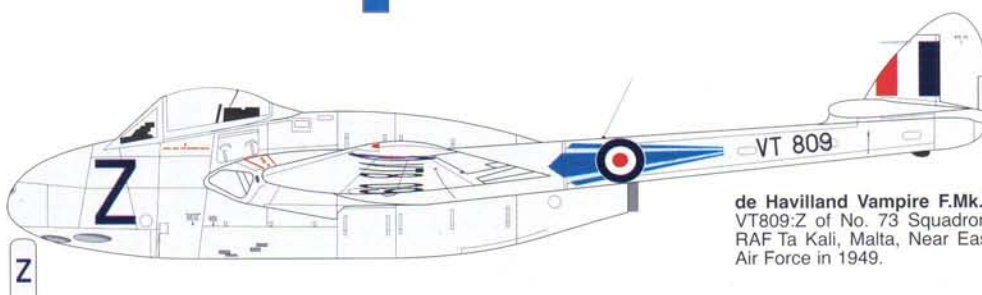
de Havilland Vampire F.Mk.1 TG442:FMI-H of No. 203 Advanced Flying School, RAF Driffield in late 1949. A dark circle on the nose and nose wheel door are possibly blue.



de Havilland Vampire F.Mk.1 TG348:RAL-B of No. 605 (County of Warwick) Squadron, RAuxAF, Honiley, March 1950. Nose wheel door is possibly blue.



de Havilland Vampire F.Mk.3 VT809:Z of No. 73 Squadron, RAF Ta Kali, Malta, Near East Air Force in 1949.





No. 608 Squadron Badge



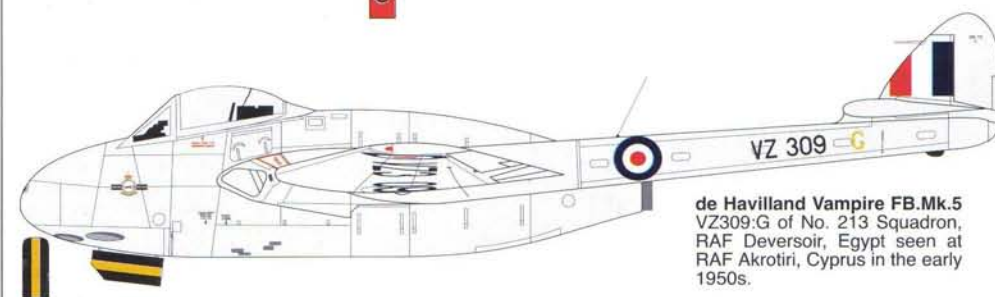
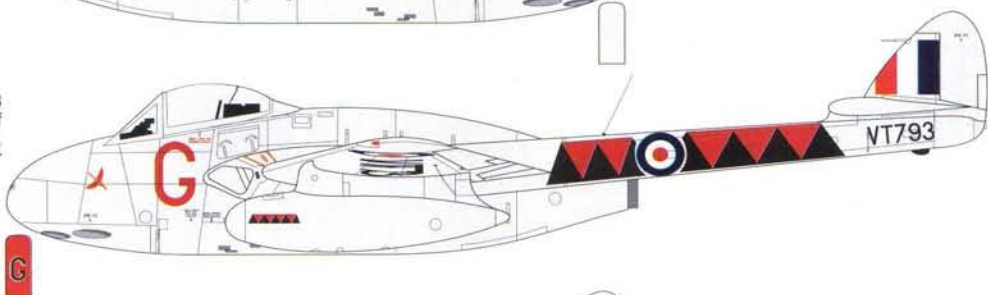
de Havilland Vampire F.Mk.3
VF316:A of No. 608 (North Riding) Squadron, RAuxAF, Thornaby in 1950-51.

A



de Havilland Vampire F.Mk.3
VT799 of No. 614 (County of Glamorgan), Squadron RAuxAF, Llandow in 1951.

de Havilland Vampire F.Mk.3
VT793:G of No. 601 (County of London) Squadron, RAuxAF, RAF North Weald, Summer 1952.



de Havilland Vampire FB.Mk.5
VZ309:G of No. 213 Squadron, RAF Deversoir, Egypt seen at RAF Akrotiri, Cyprus in the early 1950s.

No. 213 Squadron badge



TG278, the fifth Vampire F.1 before being painted in camouflage colours. It was used in August 1945 as a prototype test bed for a photo reconnaissance version, which was abandoned in October. It then tested a 4,500lb Ghost 2 engine and later broke the world height record, ending its days as instructional airframe 6851M at RAF Halton. (Authors collection)

December 1942 before progress was allowed to resume, although work on the first Goblin engine, known initially as Halford H.1 engines, had been making rapid progress under the watchful eye of engine designer Major Frank Halford. By April 1942 the engine was running on the test bed and achieving acceptable results. Two Goblines were flight tested in the sixth Gloster F.9/40 DG207/G which became known as the only Meteor F.Mk.2.

The following 17 months were a period of intense development on the basic engine, with the first mock-up, wind tunnel models and finally, the airframe of the prototype Vampire took shape. The position of the tailplane relative to the jet stream was determined in a test bed. Engine vibration, combustion efficiency and impeller performance were investigated but no major problems were experienced. Altogether this was an effective design with built in simplicity, which would prove to be a major selling point in the years ahead, requiring few changes to a successful basic design. Only

John Cunningham taking off in Vampire F.1 TG278 on 23 March 1948, when he broke the world height record by climbing to 59,446ft. The aircraft had a metal canopy and extended wing-tips. (BAe Systems plc)



the introduction of the two-seaters would alter the forward nacelle area.

FIRST FLIGHT

Three prototypes were ordered, LZ548/G, LZ551/G and MP838/G, all hand-built, with

the latter to be powered by the Halford H1A engine. Named Vampire, the first machine, LZ548/G, left the grass runway at Hatfield, the makers airfield, only 16 months after receiving the order to proceed.

This aircraft had tall, almost pointed fins and rudders, but these gave way to a more





Above: Full of atmosphere, this interesting picture shows TG278 in its height record condition next to one of the DH.108s. Left: Vampire F.1 TG270 on the grass at Wolverhampton Airport after having the air intakes heavily modified to provide the Nene engine with more air. Compare the more sharply defined layout to the normal Vampire air intake. (Alec Brew, Boulton Paul Association)

square looking planform on later machines. It was soon joined by LZ551/G and finally by MP838/G on 13 May 1944. The G suffix indicated that aircraft should have a guard at all times. The third prototype was the first to actually have the guns fitted, with a simple reflector gunsight mounted on the top of the instrument panel. The second prototype, LZ551/G, was selected to carry out trials for Vampire suitability as a naval jet fighter for operating from aircraft carriers. MP838, the

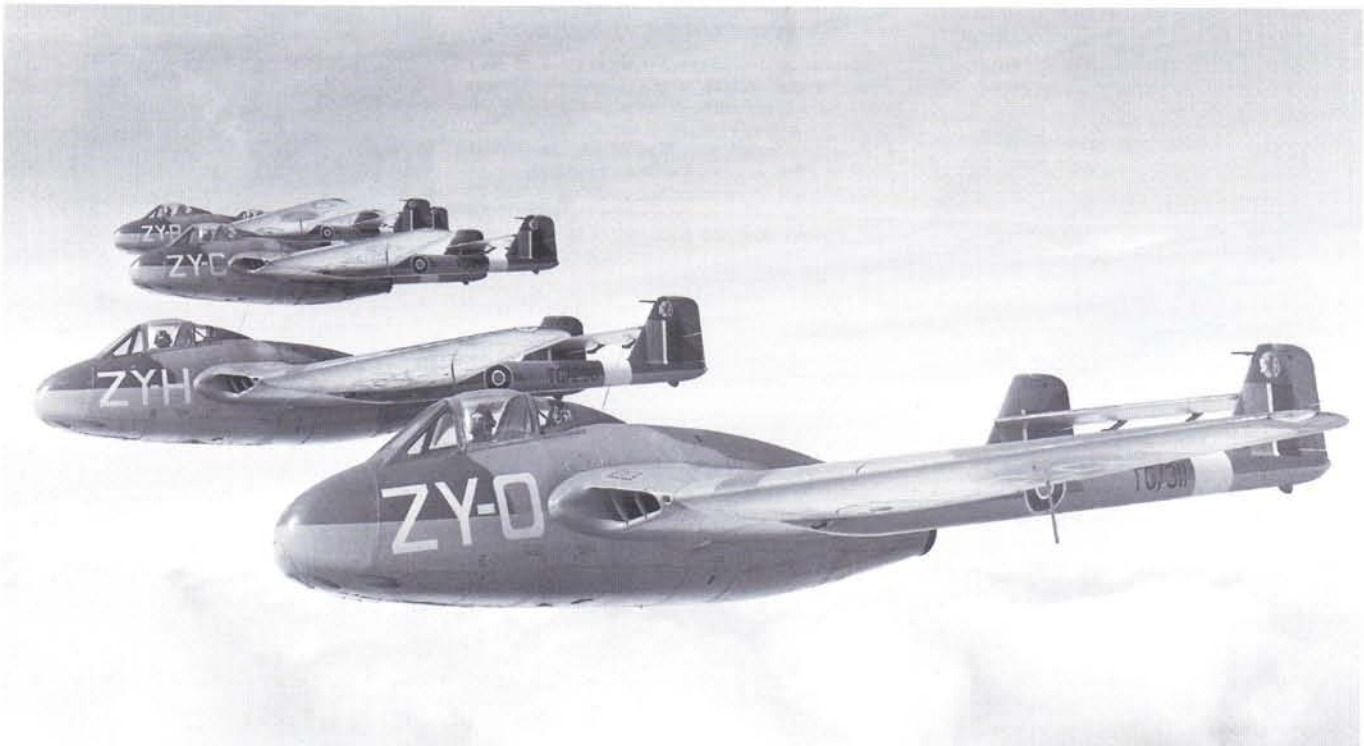
third prototype, went to the Aeroplane & Armament Experimental Establishment (A & AEE) at Boscombe Down in April 1944 for handling trials.

Initial impressions by pilots were that the view out of the cockpit was good but marred by thick windscreen supports and some canopy distortion. Cockpit layout was considered to be good with controls and instruments easily accessible. Cockpit noise was low, even at fast speeds. Taxying at high

speed did not present problems, nor did taxiing or operating from grass airfields. Aileron control was well balanced but the aeroplane had a tendency to directional unsteadiness which would reduce its effectiveness when firing weapons.

Powered by the 2,500 lb thrust Halford H.1A, MP838 had a poor rate of climb and slow acceleration. Disappointing was the length of the take-off run, which was greater

This is a well known picture of Vampire F.1s of No. 247 Squadron. From front to back they are TG311 ZY-O, TG296 ZY-H, TG291 ZY-C and TG300 ZY-B. The first two later served with No. 54 Squadron before going to the French Air Force. TG291 was an early victim and became 6613M. TG300 also became an instructional airframe, 7053M, but only after serving in No. 605 Squadron, Nos. 102 and 103 RFS, 203 AFS and 208 AFS. (BAe)





apparent in this picture of F.1 TG301 ZY-Z of No.247 Squadron, which, like all the other squadron aircraft sported an emblem on the fin. Unfortunately, TG301 dived into the sea at Druridge Bay, Northumberland on 16 October 1947. (Crown Copyright) Lower left: An early Vampire F.1 TG287 HF-L of No. 54 Squadron in April 1948. The Fighter Command band around the boom was still Sky, as were the squadron code letters. The squadron badge was applied to the nose. It later served with Nos. 203 and 202 AFS.

Establishment (RAE) at Farnborough and the A & AEE. The first production Vampire, TG274/G, flew from Samlesbury on 20 April 1945 and was delivered to Boscombe Down during June 1945. It was written off in an accident on 23 July 1945, Geoffrey Pike, the de Havilland test pilot, escaping serious injury.

VAMPIRE F.Mk.3

TG275, the second machine, powered by a more powerful 3,100lb thrust Goblin 2 became the prototype F. Mk.3 and first flew on 4 November 1946. It was used later to carry out trials with drop tanks which eventually led to them being pylon-mounted. Built to specification F.3/47 the F.Mk.3 sported an increased fuel capacity with internal tankage going up from 202 gals to 326 gals. A pair of 100 gal drop tanks could be attached under the wings. Tested at Boscombe Down between August 1947 and February 1948 the F.3 proved to be another disappointment. Stability under some conditions such as with or without drop tanks failed to meet the required standard. Pending the incorporation of suitable modifications to eradicate these and the other problems, the aircraft was cleared for restricted service use, so long as pilots had been warned and it

Vampire F.1 TG385 J5M of No. 3 Squadron in an ocean grey and dark green upper surface and PRU blue undersurface camouflage scheme. Apart from silver drop tanks J5M also has the new one piece canopy. It served with five other units before ending its days as instructional airframe 7069M. (Flight International)



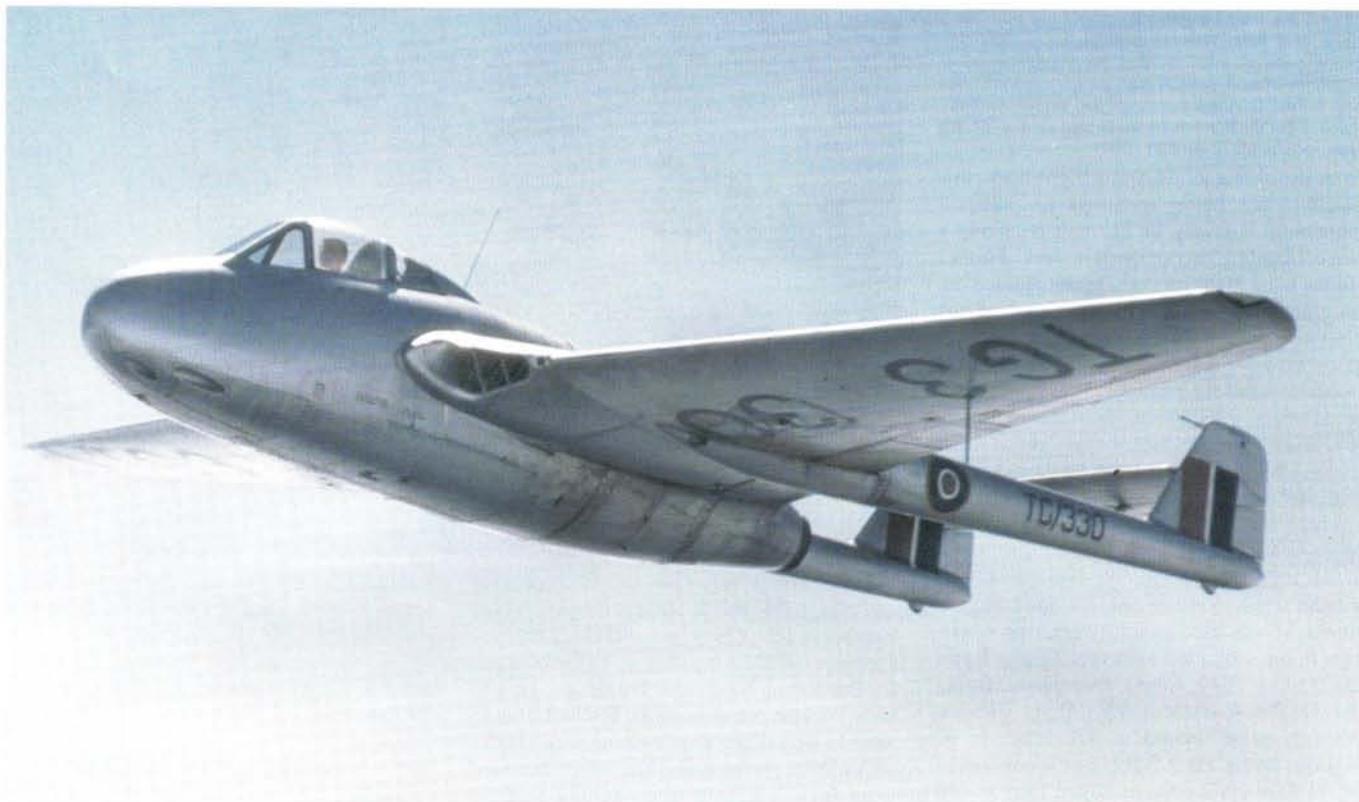
than that of the piston-engined fighters then in service. However, the overall impressions were good and it was thought that once the early problems had been rectified it would be an excellent first generation jet fighter.

In fact, the first production aircraft at Boscombe Down already showed some improvement over the prototypes. However, RAF pilots found the early marks of Vampire underpowered and care was required with some manoeuvres.

FIRST ORDERS

An initial order for 120 Vampire F.1s was placed but because Hatfield was totally committed to the Mosquito programme, production was arranged at the English Electric factories at Preston and Samlesbury. The first 16 aircraft were earmarked for a flight development programme entailing test flying at Hatfield, Samlesbury and establishments such as the Royal Aircraft





was not flown at night or in bad weather! The drop tanks, even on pylons, still created longitudinal instability. This was overcome by increasing the tailplane chord by 4.5 inches, lowering it 13 inches and fitting 'acorns' at the junction of the fin and tailplane. Vertical tail profile was changed to the more familiar de Havilland style. The elevator chord was also reduced by 1.5 inches.

Of the other development Vampires, TG277 was used to check performance parameters and maintenance trends in service use. TG278 was heavily modified by installing a Ghost engine, a pressurised cockpit and strengthened canopy, which allowed John Cunningham to reach 59,446

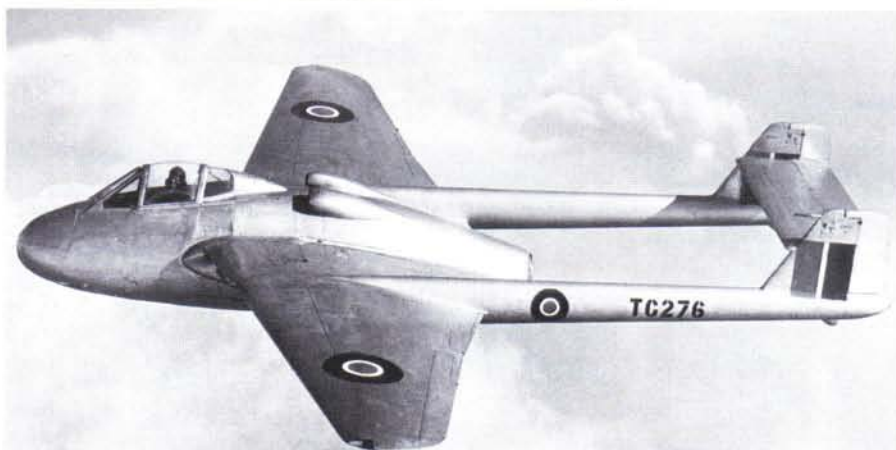


ft on 23 March 1948. TG281 and TG306 became the first and second DH.108s; TG282 was used for Goblin development and TG284 became the armament clearing aircraft with trials by de Havilland and at Boscombe Down. In 1947 it was flown to 33MU and in 1950 became the first of many Vampires to fly with the French Air Force. TG285 joined other new aircraft at the first postwar SBAC show at Radlett in 1946.

FLEXIBLE DECK AND PROTOTYPES

TG286 was modified as an F.Mk.21 for naval use, principally to test its suitability for operation from catapults and the feasibility of landing on flexible decks without an undercarriage. Delivery to Farnborough was

Left: One of the other ideas to improve airflow to the Nene compressor in TG276 was this bell-mouth air intake. Like the other ideas tried it was not successful. (RR) **Below:** Vampire F.1 TG276 test flying the Rolls-Royce Nene engine. The extra 'elephant ears' air intakes were a Rolls Royce idea to provide more air to the compressor, but not wholly successful. The modification, however, was adopted by the French and Australians. (RR)



Another study of TG330 displaying the rounded wingtips of the early Vampires. Note how the jet pipe extrudes just beyond the fuselage. (BAe)

followed by low and slow flying to check controllability at the lower end of the flight envelope.

A landing rig was built in July 1947 and tests made by dropping the aircraft from a crane – with the pilot, Lt Cdr Eric 'Winkle' Brown, RN, sitting in the cockpit to test the energy absorption when dropped from different heights. The actual deck was made up of five layers of vulcanised rubber above three layers of fire hose, which had been inflated. The whole thing had to be impervious to weather and the close proximity of hot jet engine parts.

On 29 December 1947 Lt Cdr Brown made a dummy run over the deck to check the conditions and turned in for an approach. In the final stages of landing the speed decayed allowing the aircraft to sink, despite power being applied the sluggish response allowed the arrestor hook to hit the edge of the deck followed by the tail booms which restricted elevator movement. The nose pitched down into the rubber deck and bounced back into the air. Lt Cdr Brown opened up the throttle, but on finding the elevators jammed crash-landed on the grass ahead of the deck.

He wasn't hurt but the wooden cockpit structure split open. After an analysis of the problems encountered during the trial, various modifications were introduced and the trials continued in March 1948. On 17 March Lt Cdr Brown made the first successful landing on a flexible deck against a 12mph headwind. A total of 40 flexible deck landings under various conditions were made during the spring and summer of 1948.

Now it was time to test the theory aboard a ship. The flexible deck was positioned on the rear section of the flight deck on *HMS Warrior*. Using LZ551/G, the second proto-

TX807, the only Vampire F.11 built also became a Nene test bed. This aircraft had the new one piece canopy and revised de Havilland style tailplane shape, which had been lowered, and had acorn fairings between the boom and fin. Subsequently it went to Australia as the prototype for the Mk30 and 31. (RR)

from the shortened forward flight deck, this machine not being modified for catapult launching. Arriving at 118mph he made a perfect landing on the flexible deck. Further flights were made and other pilots joined the programme. The trials, to prove that jet aircraft could land on such surfaces in small areas, also pre-dated the short and/or vertical landing principle used by the Harrier, by some years. Fundamentally, the project was before its time, the biggest headache being the movement of the aircraft (with no undercarriage!) once it had landed.

On 3 August 1947 John Cunningham, in Vampire F.Mk.1 VF332, raised the Class C.1/1 100km closed circuit speed record to 496.88 mph. Putting the Vampire in the limelight was tried again by entering examples in the unlimited Kemsley Trophy Race. On 30 July 1949, John Cunningham, flying the Goblin 4 testbed, VV190, at Elmdon Airport, came second at 470 mph. J. W. Wilson, flying FB.9 WR211 at Woolsington on 11 July 1952 only managed fifth at 445 mph.

English Electric used TG287 as a trials aircraft, eventually releasing it to No. 54 Squadron in 1948. TG288 went to Boscombe Down for service trials and was later delivered to the French Air Force.

Flight testing of wingtip-mounted cameras was done on TG289 with TG293 being used

Right: Vampire F.1 TG328 derelict in a hanger at Yeovilton after being part of the flexible deck experiments team and later used as an instructional airframe. The circular markers are for measuring instruments. (AE Hughes) Below: Almost certainly Vampire F.3 VT795 about to touch down on the flexible deck at RAE Farnborough. The large I on the nose is a target for measuring instruments. VT795 went to de Havilland in 1947 for conversion to an F.21. It went to Brooklands Aviation at Sywell in July 1955 for reconditioning and was finally scrapped in April 1948.



by the Empire Test Pilot's School (ETPS) and TG299 went to Aero Flight at Farnborough. TG314 tested the new Goblin 2 engine; TG328 became the first F.Mk.20 for the Royal Navy and TG336 the first to have cockpit pressurisation. In 1948 TG343 went to Boscombe Down for general checks on Vampire performance and while there did wing fuel drop tank tests. TG372 went to Canada for winterisation trials and stayed there, ending its days in Rockcliffe Museum. TG433 was a company trials aircraft, initially testing a later canopy installation for the

DH.108, flight testing the Goblin 3 and then became an FB.Mk.6, prototype of the export version of the RAF's FB.Mk.5. TG434, it's wings clipped to 38ft, became a development aircraft for the FB.Mk.5 and flew on 29 June 1948.

VAMPIRES JOIN THE RAF

Vampire F.Mk.1s joined the RAF in April 1946 when the Odiham Wing started to re-equip Nos. 247, 54 and 130 Squadrons. The first few F.1s delivered to No. 247 Squadron





Vampire F.3s of No. 601 Squadron, which were normally based at North Weald, are seen here at summer camp on Malta. Noticeable in this picture, with VT793:G in the foreground, are squadron markings on the booms, miniature squadron markings on the drop tank, the winged sword of 601 on the nose forward of the individual letter and red nosewheel doors with the aircraft letter in black outlined in white. (RAFM P100174)

allowed participation in the Victory-Day fly-past over London on 8 June 1946. Nos. 54 and 130 (later re-numbered 72) Squadrons did not start to receive their Vampires until October that year with the Wing continuing to operate the F.Mk. 1 until 1948 when the F.Mk.3 superceded them. Strangely, F.Mk.1s, although not in wide RAF use, were issued to No. 595 Squadron during December 1946. This was an anti-aircraft co-operation unit operating from Pembrey and Fairwood Common. It continued using the F.Mk.1 until 1950 but had been re-numbered as No. 5 Squadron in October 1948. The following year saw a move to Chivenor where the squadron received F.Mk.3s during August 1950, before a final move to Llandow on March 1951 and disbandment on 25 September 1951.

Another anti-aircraft co-operation squadron, No. 631, also received the F.Mk.1 in August 1948 at Llanbedr. In 1949 631 became No. 20 Squadron and used the F.Mk.1 until September 1951. The arrival of the F.Mk.3 allowed surplus F.Mk.1s to be allocated to other units, with No. 3 Squadron at Wunstorf and part of the RAF's 2nd Tactical Air Force (2TAF) based in Germany being the first in April 1948.

Jet equipment arrived early for the Royal Auxiliary Air Force (RAuxAF) when No. 605 Squadron at Honiley received F.Mk.1s in July 1948. No. 501 Squadron at Filton

received their F.Mk.1s during February 1949, with No. 502 at Aldergrove accepting a few in January 1951 before getting the FB.Mk.5 later the same year. The Odiham Wing began to receive Vampire F.Mk.3s during 1948 and in a great 'show-the-flag' exercise, No. 54 Squadron flew their Vampires from Odiham to Goose Bay, Canada, arriving on 14 July 1948. They were the first jet fighters to fly across the Atlantic and created a lot of interest during a tour of Canada and the USA.

The Central Flying School (CFS) received F.Mk.3s in February 1948 followed by No. 72 Squadron (June), 32, 73 and 247 (July). RAuxAF squadrons Nos. 601 and 604 started to get F.Mk.3s in November 1949, 608 in May 1950, 614 in July 1950, 602 in February 1952 and 613 September 1952.

The only other two units to operate the F.Mk.3 were the Armament Practice Station (APS) at Acklington and No. 4 Civilian Anti-Aircraft Co-operation Unit (CAACU), receiving F.Mk.3s in December 1949 and September 1951 respectively.

By late 1948 the Vampire FB.Mk.5 was replacing the F.Mk.3 in RAF Fighter Command but the Odiham Wing, Nos. 54, 72 and 247 Squadrons, did not re-equip until October 1949. It was the RAF squadrons in Germany that saw most use with the FB.Mk.5s. The commitment to NATO, the Berlin Airlift, border infringements by East European countries all contributed to a busy schedule for Vampire squadrons based in Germany. As such, these squadrons operated the FB.Mk.5 in the greatest numbers. The first to get them was No. 16 Squadron in December 1948 when it was part of the Gutersloh Wing. Other Gutersloh squadrons followed, Nos. 3, 26, in early 1949 and 67 and 71 in September 1950. In October the Celle squadrons, Nos. 93 and 94 received the FB.Mk.5, followed by No. 145 in March 1952. The Wunstorf squadrons, Nos. 4, 11, began to get their FB.Mk. 5s in 1950 with No. 5 Squadron not getting theirs until March 1952. Fassberg started to receive FB.Mk.5s for Nos. 14, 98, 112 and 118 Squadrons during March-April 1951; the

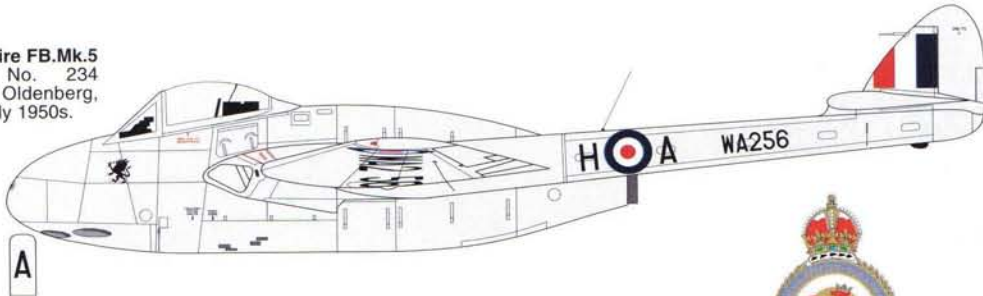


There was a plan at one stage to try and store as many naval aircraft in the smallest space possible. This was one idea using Vampire F.1s TG278



No. 234 Squadron badge

de Havilland Vampire FB.Mk.5
WA256:H-A of No. 234 Squadron, RAF Oldenberg, Germany, in the early 1950s.



A



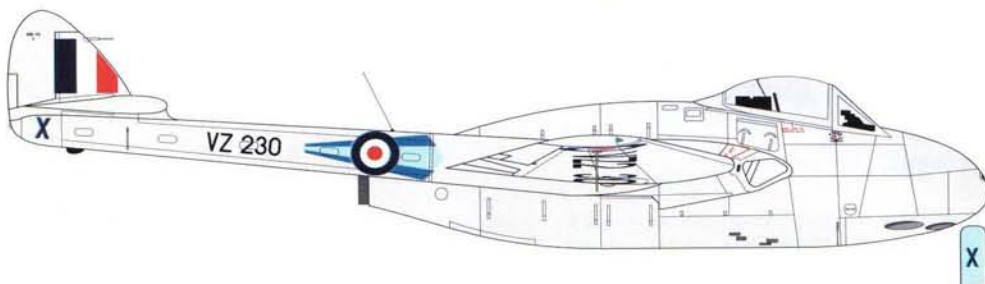
No. 247 Squadron badge

de Havilland Vampire FB.Mk.5
VZ235:C of No. 247 Squadron, RAF Odiham in 1950.



C

de Havilland Vampire FB.Mk.5
VZ230:X of No. 73 Squadron, RAF Ta Kali, Malta, Near East Air Force in 1950.

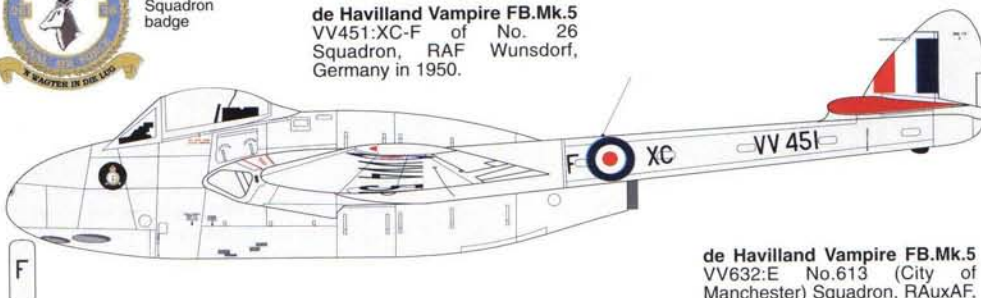


X



No. 26 Squadron badge

de Havilland Vampire FB.Mk.5
VV451:XC-F of No. 26 Squadron, RAF Wunsdorf, Germany in 1950.



F

de Havilland Vampire FB.Mk.5
VV632:E No.613 (City of Manchester) Squadron, RAuxAF, Ringway in 1955.



E



No. 613 Squadron badge

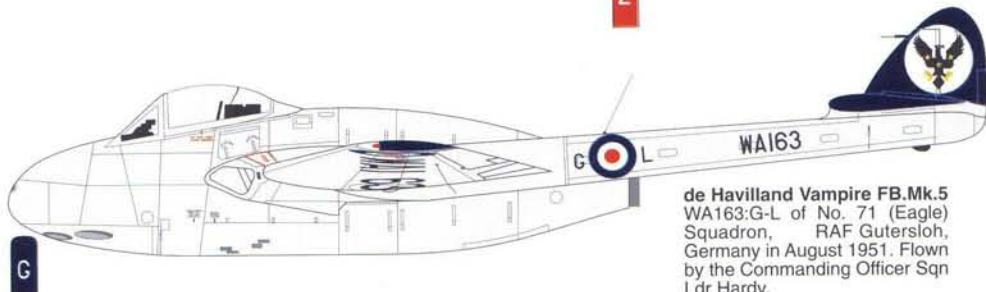
de Havilland Vampire FB.Mk.5 WA258:Z Officer Commanding's aircraft No. 60 Squadron, RAF Butterworth in April 1951. The silver and black checks were carried briefly before the more familiar black and silver lightning flashes.



Z



No. 71 Squadron tail badge



G

de Havilland Vampire FB.Mk.5
WA163:G-L of No. 71 (Eagle) Squadron, RAF Gutersloh, Germany in August 1951. Flown by the Commanding Officer Sqdn Ldr Hardy.

other units in Germany being Nos. 234 and 20 Squadrons at Oldenberg who started to re-equip in September 1952 and February 1953 respectively, and No. 130 Squadron, now based at Bruggen, in 1953.

Malta was home to Nos. 73 and 185 Squadrons during 1949-51. Middle East squadrons such as Nos. 6, 213 and 249 at Deversoir in the Canal Zone, and No. 32 at Shallufa, all used FB.Mk.5s during 1949-50 but found them unsuitable for hot climates.

In the Far East No. 28 Squadron at Sek Kong on Hong Kong island and No. 60 Squadron at Tengah in Malaya also used the FB.Mk.5 during 1950-51.

Vampire FB.Mk.5s became standard equipment during 1951 for Nos. 501, 502, 602, 603, 605, 607, 609, 612, 613 and 614 Squadrons of the RAuxAF and remained in use until they were all disbanded following the Government White Paper in 1957. UK-based front-line squadrons began to re-equip with the Meteor F.Mk.8 during 1953 as it was felt the Vampire design was already becoming outdated.

Early experience in the Middle East with the FB.Mk.5 revealed the need to provide pilots with cockpit cooling and more power, the Goblin suffering from the high temperatures in tropical countries. The result was the FB.Mk.9 which incorporated a Godfrey refrigerator unit in the starboard air intake fillet, resulting in an eight inch fillet forward extension. This also meant that the wing was not interchangeable with that of the FB.Mk.5, hence a new mark number. The engine fix included dual fuel booster pumps resulting in the 3,500lb thrust Goblin 3. Nos. 28 and 60 Squadrons in the Far East began to replace their FB.Mk.5s with the new FB.Mk.9s in January 1952. The Middle East squadrons, Nos. 6, 8, 73, 213 and 249, started to receive their FB.Mk.9s shortly afterwards but their service life was relatively short with the introduction of the more suit-

Initially issued to No. 32 Squadron, Vampire F.3 VT812-N later served with Nos. 614, 601 and 602 Squadrons before salvation as 7200M. It was restored to the colours it wore when with No. 601 Squadron for the 50th anniversary Royal Review of the RAF at Abingdon in 1968. (Air Britain)



Above: Vampire F.3 VF345 showing off the new pylon-mounted drop tanks. The small protrusions under the rear of the tail booms were to offset any damage caused by spirited pilots rotating too sharply on take-off! It joined No. 73 Squadron at Malta but overshot when landing at Bergamo, Italy, on 27 October 1949. (BAe) Below: VF344:ZY-S, an F.3 of No. 247 Squadron before joining the RAuxAF where it served with Nos. 604, 614 and 608 Squadrons. (MAP)



able Venom FB.Mk.1s in 1954.

In the Far East Vampire fighter-bombers were used operationally against terrorists in the jungle. Squadrons in the Middle East were also operational protecting Britain's oil interests against border insurgents and No. 8 Squadron, normally based at Khormaksar, Aden, was based in Kenya during April 1954 to support forces fighting the Mau Mau terrorists. Over a period of ten days the squadron dropped 111 60lb bombs and fired well over 12,000 rounds of 20mm ammunition.

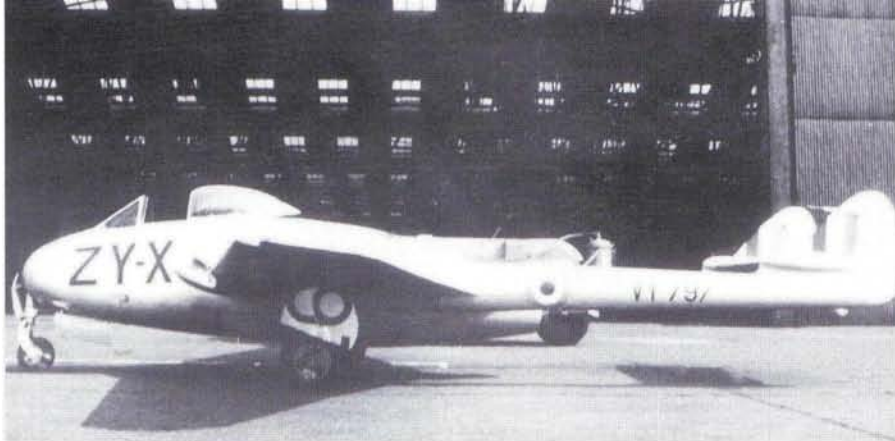
NENE VAMPIRE

As early as 1945 de Havilland's had proposed a version of the Vampire to be powered by the Rolls-Royce Nene. This engine, developed at the instigation of MAP in 1944, was ready for testing by 27 October 1944, and exceeded expectations by achieving 5,000 lb thrust against a target of 4,000 lb. In 1947 de Havilland had proposed a ground attack version of the Vampire and the Ministry of Supply (MoS), who had taken over from the wartime MAP, suggested fit-

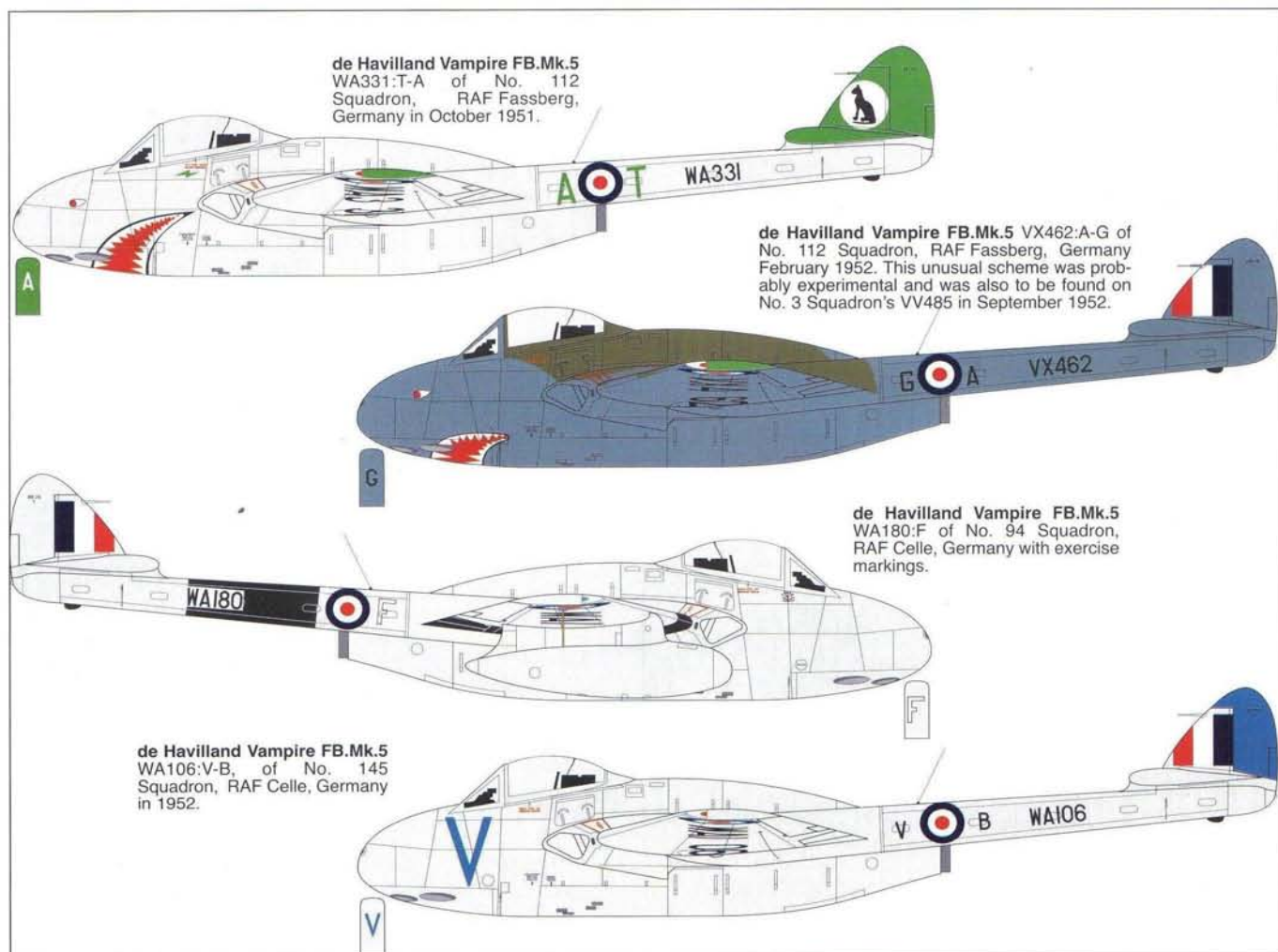


ting it with the Nene. The Ministry wanted the so called Nene-Vampire F.Mk.IV ordered for the RAF as it was estimated that performance would be better and deliveries could start as early as July 1947. TG276, 279, 280 and out-of-sequence TX807 were set aside as Nene-powered F.Mk2s. It was discovered that installation of the Nene engine, with a single-stage, double-entry centrifugal compressor with a double-sided impellor, in the Vampire without major structural alterations to the airframe was handicapped by an intake system which was not suitable for a double sided compressor entry. Investigation revealed that if the intake ducts, which discharged into the eye of the compressor on the Goblin installation, flowed fully into the plenum chamber of the Nene installation, an improved higher efficiency would be obtained to make the Nene - Vampire combination a success. Take off and climb performance especially would be superior to that of the Goblin-Vampire aircraft. Based on the projected success of the Nene-Vampire, an order was placed with English Electric in February 1945 for 60 Vampire F.Mk.IIs. This would be later reduced to 40, and finally two, TX807 and TX808, but changing the order to 38 Mk.IVs, also cancelled later that year.

The fuselage of TX808 was used in the repair of TG280 after its accident at Hatfield. TX807 was used by Rolls-Royce and the A & AEE as an engine development aircraft, after which it was moved to Australia as the first Vampire F.Mk.30, later becoming A78-2.



Above: No 247 Squadron continued to use its codes on the silver finished Vampire F.3, in this case, VT797:ZY-X. The fin flashes had changed by then. It later flew with No. 20 Squadron and ended its days with 5 CAACU. (MAP) Below: Vampire F.3 VT809:Z sporting the markings of No. 73 Squadron. The code letter was in dark blue and the fuselage arrow was the same blue with yellow outers. VT809 ran out of fuel during a goodwill visit to Italy and was written off in the subsequent forced landing on 23 September 1949. (MAP)





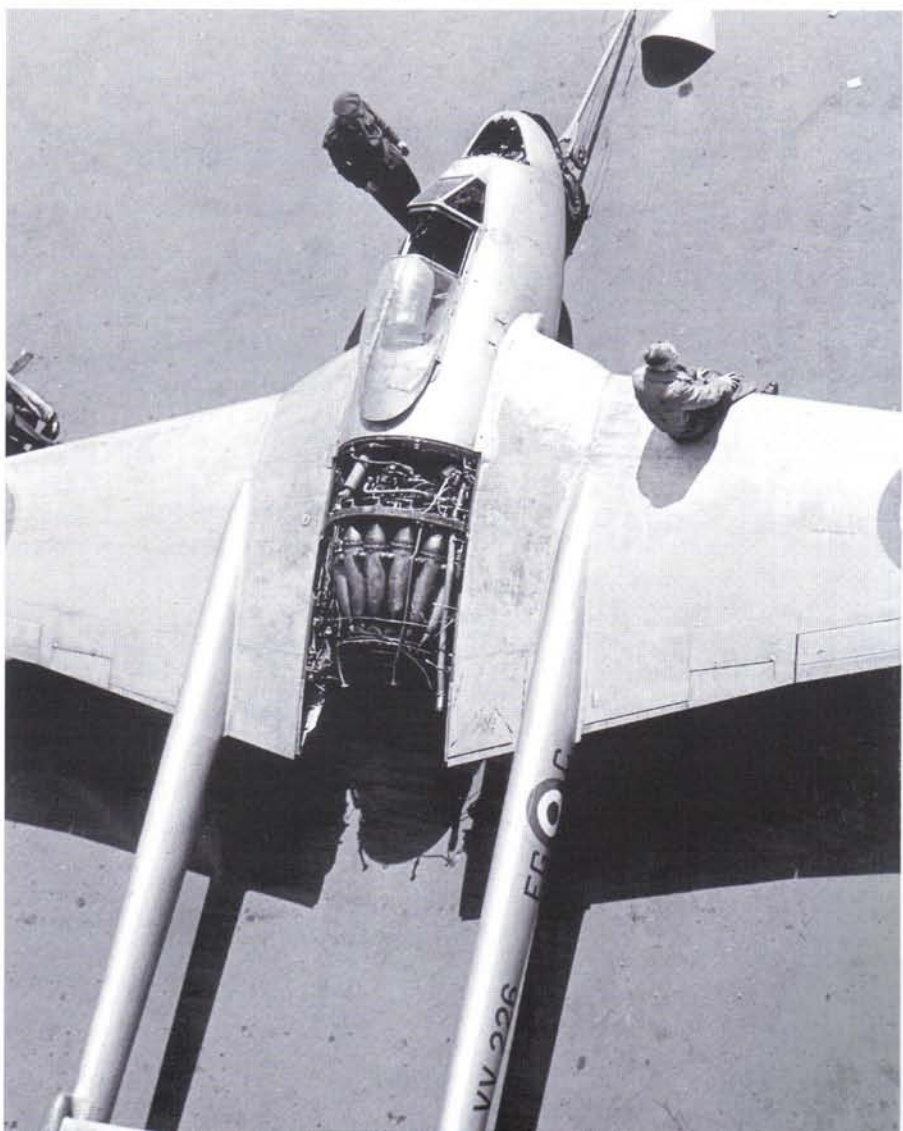
Pre-flying Vampire FB.5s outside a hanger of one of the former Luftwaffe bases at Fassberg. WA180 carries black exercise stripes around the wings and booms when they acted as 'enemy bombers' during Exercise Ombrelle in June 1951. Letter F on boom is in white with black outline, but the aircraft in front just has a black D. (Crown Copyright)

Back on 27 June 1945 TG276 was delivered to the airfield at Church Broughton for trials with a Nene engine by the Rolls-Royce Flight Test Facility. Normally the test facility operated from Hucknall's grass airfield but until runways were laid jet aircraft used Church Broughton. Initial test flights showed that the ram efficiency of the wing root intakes to be considerably below estimate, 19 per cent instead of 60 per cent. The low efficiency was found to be due to abnormally large forward speed effects, in this case a considerable pressure rise ahead of the side entries.

During May to October 1946, TG276 was used to test a number of modified intake shapes and boundary layer lips to the fuselage side of the intake. In October the trials were interrupted when the cockpit canopy came off just after take off and damaged the tailplane. After repairs it was flown to Boscombe Down for brief handling trials. Tests carried out in the wind tunnel at the RAE confirmed the forward speed effect. However, all attempts to reduce the effects of the original intakes problem ended unsuccessfully.

Rolls-Royce found that the only improvement of any magnitude was that obtained by fitting external intakes, known as 'elephant's

A superb birds eye view of Vampire FB.5 VV226 EG-C of No. 16 Squadron. The removal of the panels and jet pipe show the access available for maintenance. This machine was lost on 24 October 1953 when engine failure caused a ditching just north of the Skerries, Irish Sea.



DH. Vampire production for RAF and Royal Navy

Number	Model	Serial range	Factory	Contract No/Comments
120	F.1	TG274 - TG315 TG328 - TG355 TG370 - TG389 TG419 - TG448 TX807 - TX846 TX953 - TX970	Preston	6/ACFT/4182/C.4(b) 13.4.44
58	Mk.II		Preston	6/ACFT/4182/C.4(b) 23.2.45 Reduced to 40, then 2 Mk.II 38 Mk.IV all cancelled 25.9.45 only TX807 built.
120	F.1/F.3	VF265 - VF283 VF300 - VF348 VF330 - VF350 VF362 - VF392	Preston	6/ACFT/5421/C.20(a) 7.4.45 VF265-VF314 built as F.1 VF315-VF348 built as F.3 VF330-VF350, VF362-VF392 Cancelled and replaced with VG692-VG732, VG750-VG760
52	F.3	VG692 - VG732 VG750 - VG760	Preston	6/ACFT/5421/C.4(a) 10.5.45 Only first 12 built, rest cancelled
60	F.1	VL140 - VL168 VL193 - VL223	Preston	6/ACFT/5421/C.20(a) 7.8.45 All cancelled 25.9.45
2	E.18/45	VN856, VN860	Preston	SB.66562 13.12.45 For DH.108 but canc. 8.2.46
150	F.3	VP674 - VP698 VP715 - VP753 VP766 - VP792 VP811 - VP853 VP864 - VP874	Preston	6/ACFT/218/CB.7(a) 11.5.46 Cancelled. 85 built for Canada
64	F.3	VT793 - VT836 VT854 - VT874	Preston	6/ACFT/936/CB.7(a) 6.12.46 1 Canc. 5 to Sea Vampire F.21 5 to Norway
30	F.20	VV136 - VV165	Preston	6/ACFT/1048/CB.7(a) 21.3.47 VV136-VV153 built as FB.5s then converted to F.20 VV154-VV165 canc.
46	F.3/FB.5	VV187 - VV232	Preston	6/ACFT/1053/CB.7(a) 9.4.47 VV187-VV214 built as F.3 VV215-VV232 built as FB.5
200	FB.5	VV443 - VV490 VV525 - VV569 VV600 - VV640 VV655 - VV700 VV717 - VV736	Preston	6/ACFT/1387/CB.7(a) 9.7.47 Ordered as F.3 but built FB.5s VV612/VV613 Venom prototype VV675 conv. to FB.9 18 to France, 3 to RN, 2 to Lebanon
1	DH.108	VV120		6/ACFT/1067/CB.7(a) 10.7.45 3rd proto, using a Vampire fuselage
4	FB.5	VX461 - VX464	Preston	6/ACFT/936/CB.7(a) 8.6.48
7	FB.5	VX471 - VX477	Preston	6/ACFT/1053/CB.7(a) 8.6.48
129	FB.5	VX950 - VX990 VZ105 - VZ155 VZ161 - VZ197	Preston	6/ACFT/2467/CB.7(a) 7.8.48 6 to RN, 52 to France
136	FB.5	VZ206 - VZ241 VZ251 - VZ290 VZ300 - VZ359	Preston	6/ACFT/2467/CB.7(a) 11.8.48 4 to Italy, 20 to France
134	FB.5	VZ808 - VZ838 VZ840 VZ839 VZ841 - VZ852 VZ860 - VZ877	Hatfield Hatfield Preston Preston	6/ACFT/2961/CB.7(a) 21.10.48 8 to France, 4 to RNZAF, 1 to RN, 1 to Lebanon VZ878 - VZ904, VZ909-VZ952 not delivered to RAF, set aside for overseas orders.
320	FB.5	WA101-WA150 WA159-WA208 WA215-WA264 WA271-WA320 WA329-WA348 WA355-WA404 WA411-WA460	Preston	6/ACFT/2981/CB.7(a) 28.10.48 21 to RNZAF, 2 to Lebanon
20	FB.5	WE830-WE849	Preston	6/ACFT/3974/CB.7(a) 15.8.49
5	FB.5	WF578-WF579 WF584-WF586	Preston	6/ACFT/2467/CB.7(a) 23.2.50 Replacements for VZ252 VZ256 which went to Italy.
27	FB.5	WG793-WG807 WG826-WG837	Chester	6/ACFT/5614/CB.7(a) 5.8.50 2 to RNZAF
50	FB.5 FB.9	WG840-WG847 WG848-WG851 WG865-WG892 WG922-WG931	Chester Preston	6/ACFT/5613/CB.7(a) 5.8.50 1 to RNZAF, 1 to Lebanon
82	FB.9	WL493-WL518 WL547-WL587 WL602-WL616	Preston/Chester	6/ACFT/6093/CB.7(a) 8.12.50 2 to RNZAF, 2 to Lebanon, 1 to Jordan
50	FB.9	WM408-WM429 WM441-WM468	Hatfield	6/ACFT/6093/CB.7(a) 22.12.50 All cancelled 4.1.51
50	NF.10	WM659-WM677 WM703-WM733	Chester	6/ACFT/6214/CB.7(a) 10.1.51 25 to Indian Air Force
25	NF.10	WP232- WP249 WP250- WP256	Hatfield Chester	6/ACFT/6441/CB.7(a) 13.2.51 2 to Indian Air Force
150	FB.9	WP990- WP999 WR102- WR111 WR114- WR158 WR171- WR215 WR230- WR269 WV689- WV691	Chester Chester	6/ACFT/6402/CB.7(a) 28.2.51 Some sub-contracted to Fairey Aviation, Ringway. 6 to Jordan, 1 to RNZAF 1 to Southern Rhodesian AF
3	NF.10	WW456- G-5-7	Chester	6/ACFT/6214/CB.7(a) 16.5.51 All 3 later went to Indian AF
1	T.11	WW456, WW461	Christchurch	Private venture trainer
2	T.11		Christchurch	6/ACFT/7075/CB.7(a) 5.7.51 WW461 evaluated as T.22 by RN

Continued on next page

ears, on top of the engine cowlings. These improved efficiency but introduced higher aircraft drag, the net result being a gain in performance under normal flight conditions. After a brief spell back at Hucknall in February 1948, TG276 was delivered to Boulton Paul at Wolverhampton. J D North and Dr Renshaw of Boulton Paul had designed the wing root intakes for the Nene-powered Hawker Sea Hawk and it was thought their experience could read across to the Nene-Vampire problem. In October 1948 it was agreed to fit the Sea Hawk type intakes to TG276, remove the external intakes and carry out flight trials.

Boulton Paul test pilot, A E 'Ben' Gunn, made the first flight in TG276 with the revised intakes on 5 January 1950. This, and subsequent flights were made from the grass surface of Pendleham's Wolverhampton airport.

Scale model wind tunnel tests indicated that improvements to the intake efficiency could be as high as 75 per cent compared to the external ducts used previously. TG276 was fitted with a standard tailplane and delivered to Boscombe Down for further trials, conducted during March and April 1950.

To improve pitching characteristics in flight at critical Mach numbers a 12 inch strip of dural was fitted to the trailing edge of the elevator and pilots warned of the sudden nose-up change of trim at Mach 0.80. At the end of the trials TG276 went to France as a test aircraft for the SNCASE Vampire Mk.51.

The second machine allotted to the test programme, TG280, was delivered to Hucknall from the Preston factory in September 1945. Flight testing continued until July 1946 when it was delivered to Hatfield but was badly damaged during October in a ground accident. It was taken back to Hucknall, repaired and flown to Boscombe Down for high Mach number flight testing. It returned to Hucknall in April 1947 for modifications to the air intakes which were flight tested back at Boscombe Down before going on to the factory at English Electric to have a low set



Vampire production for RAF and Royal Navy continued from previous page

Number	Model	Serial Number	Factory	Contract No./comments
203	FB.9	WX201- WX241 WX259- WX308 WX327- WX376 WX403- WX435 WX459- WX487	Chester	6/ACFT/7150/CB.7(a) 12.7.51 Only first 42 built, rest cancelled. 16 to SRAF, 3 to Jordan WX339 renumbered WR181 WX340 renumbered WR187 WX341 renumbered WR188 WX342 renumbered WR205
50	T.11	WZ414- WZ430 WZ446- WZ478	Christchurch/Chester/Hatfield	6/ACFT/7381/CB.7(a) 3.10.51 2 to Indian AF, 1 to Mexico
93	T.11	WZ493- WZ521 WZ544- WZ593 WZ607- WZ620	Christchurch/Chester/Hatfield	6/ACFT/7382/CB.7(a) 3.10.51 1 to Indian AF, 1 to Chile, 1 to Jordan, 1 to Swiss AF, 1 to Austria
53	T.22	XA100- XA131 XA152- XA172	Christchurch	6/ACFT/7704/CB.7(a) 8.2.52 3 to Chile, 2 to RAN
160	T.11	XD375- XD405 XD424- XD463 XD506- XD554 XD588- XD627	Christchurch/Chester/Hatfield	6/ACFT/8981/CB.7(a) 12.2.53 4 to Swiss AF, 2 to Jordan, 1 to Mexico, 1 to India, 1 to Chile, 1 to Austria
135	T.11	XE816- XE833 XE848- XE897 XE919- XE961 XE975- XE998	Christchurch/Chester/Hatfield	6/ACFT/9751/CB.7(a) 29.7.53 12 to SRAF, 2 to India, 1 to Chile, 1 to Irish AC
20 (Sea)	T.11	XG742- XG748 XG765- XG777	Christchurch	6/ACFT/10521/CB.7(a) 24.6.54 3 to Chile, 2 to RAN
66	T.11	XH264- XH278 XH292- XH330 XH357- XH368 XJ771- XJ776	Hatfield/Chester	6/ACFT/11204/CB.7(a) 17.8.54 5 to RNZAF, 4 to SRAF, 2 to Swiss AF, 1 to Austria Gift from R Nor AF
6	T.11			1 to Swiss AF, 1 to Chile
24	T.11	XK582- XK590 XK623- XK637 ZH563	Chester	6/ACFT/12203/CB.5(b) 30.6.55 1 to Swiss AF, 1 to Austria 1 aircraft (U-1216) gift from Swiss AF to RAF Benevolent Fund. Registered G-BVLM on 7.6.90 for Royal Jordanian Historic Flight.
1	T.55			

tailplane fitted. Test pilot John Squier flew it in this configuration on 15 June 1948 from Samlesbury and it continued test flying at Hucknall and RAE Farnborough until June 1951 when it was retired to become an instructional airframe at RAF Cranwell.

Both Australia and France opted for the Nene-powered Vampire. Australia received TX807/ A78-2 on 27 August 1948 and during 1949 it was extensively test flown by pilots of No. 78(F) Wing at Laverton and the Aircraft Research and Development Unit. They flew it against the Goblin-powered Vampires A78-1 and A78-3. Based on these

Seven Vampire FB.5s and a T.11 of 3/4 CAACU lined up at Exeter. The nearest two are VZ231 82 and WG793 12. (N Collier)



tests the Aussies opted for the 'elephant ear' Nene-powered Vampire. They also built 114 Nene 2-VH engines under licence at the Commonwealth Aircraft Corporation Pty Ltd factory at Fishermens Bend, Melbourne.

Due to the external intakes, problems were experienced with elevator control when approaching the critical Mach number of 0.76. The nose would drop and control had to be applied positively to recover. The external intakes were moved to the underside of the engine cowling but this caused the aircraft to pitch up instead. It did however, give the Australian pilots more acceptable control at higher Mach numbers.

In February 1949 Vampire FB.Mk.5 VV568 was pulled off the Preston production line and sent to Hatfield where de Havilland modified it to take a Nene engine as a pattern aircraft for the French. For their Vampires the French adopted the Nene 104B engine, licence-built by Hispano-Suiza SA at Guadalajara in Spain.

VAMPIRE TO DH.108

Specification E.18/45 was for an experimental research aircraft to investigate swept

Five Vampire FB.5s of 5 FTS. VX985 displays the yellow training band around the boom and had previously served with the CFE and ATDU. (MAP)





Inside the servicing hanger (ASF) for the Fassberg Wing in Germany 1955. In view are FB.5s WA128:L-W, No. 130 Squadron; VV486:L-A No. 118 Squadron; WA380:F-A No. 118 Squadron; WA341:R-A No. 118 Squadron and WA417:G-L of No. 98 Squadron. The three facing left nearest the wall are all from No. 118 Squadron with black flashes on the nose, tailplanes and acorns. (J Schutte)

wing behaviour and to provide the company with practical design data for the forthcoming DH.106 Comet airliner and DH.110 twin-engined jet fighter.

Allocated the number DH.108, the design was for a tailless swept wing aircraft utilising the fuselage of a Vampire. A swept fin and rudder mounted over an extended fuselage made for an exciting futuristic looking aircraft. Vampire F.Mk.1 TG281 had been used for nose section installation tests but TG283 was the first DH.108, getting airborne on 15 May 1946 for its first flight from RAF Woodbridge where the runway was longer than the one at Hatfield.

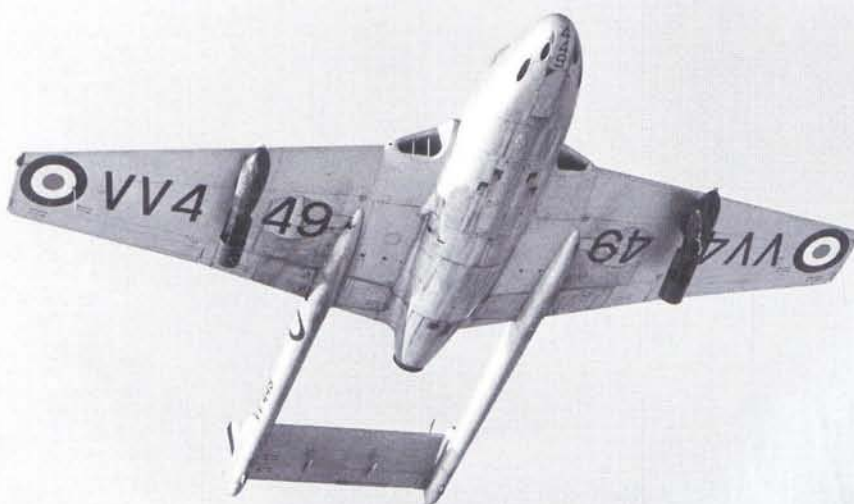
This aircraft was to investigate low speed characteristics of the swept wing and afterwards, in October 1948, went to the RAE at Farnborough for further trials involving handling stability and control. Long stroke Sea Vampire undercarriage legs were fitted to allow high angle of attack approaches down to 95 kts. During some stalling tests on 1 May 1950, the aircraft crashed at Hartley Wintney, Hants, killing the pilot, Sqn Ldr Genders.

The second Vampire converted to a DH.108 was TG306 which was to investi-

gate speeds up to Mach One. Making its first flight from Hatfield on 23 August 1946 TG306 was powered by a 3,300 lb thrust Goblin 3. Wing sweepback had been increased to 45 degrees and power controls fitted. The aircraft was soon clocking up speeds well in excess of 600 mph and it was decided to try for the world's absolute speed record. On 12-13 September that year the new aircraft excited crowds at the SBAC Radlett show as Geoffrey de Havilland Jnr put it through its paces. The official course for the speed record attempt was along the south coast near Tangmere with the pilot carrying out practice flights as part of the high speed testing programme. The conditions for a trial run along the Thames Estuary appeared ideal on the evening of 27 September and accordingly the pilot started his dive at 10,000ft to build up speed for a

low fast run in. Tragedy struck after 20 minutes when the aircraft was seen to break up in mid-air and fall into Egypt Bay near Gravesend. From investigation of the recovered wreckage it appeared the aircraft had encountered unexpected turbulence, subjected to a violent nose pitch down and the wings failed.

The third machine, VW120, also used a Vampire fuselage but incorporated numerous modifications based on experience with the first two aircraft. Power was increased with the installation of a 3,750 lb thrust Goblin 4, a pointed nose, presumably to reduce shock loads, a redesigned canopy and lower pilot's seat. First flight was from Hatfield on 24 July 1947 piloted by test pilot John Cunningham. The flying programme now moved ahead slowly as experience and confidence built up again. An attempt was



Fine underside study of FB.5 VV449 with two 250lb bombs. Note the serial numbers repeated on the nosewheel door. After service with the CFE it joined No. 71 Squadron, after which it was released to 2nd TAF Comm Flight. (Crown Copyright)

Right: Groundcrews at work on Vampire FB.5 VZ344:O-L of No. 98 Squadron. The lightning flash is black with a white surround. The badge above the flash is the Derby Coat of Arms, 98 Sqd being 'Derby's Own'. Code letter O on the nosewheel door is in black with white surround. (J Schutte) Lower right: A No. 54 Squadron Vampire FB.5 VZ115 in silver overall finish. Note the miniature blue and yellow squadron marking each side of the nose badge. The marking is repeated on the nosewheel door. This became another casualty when serving with No. 112 Squadron, the engine cut on the approach to Jever on 17 March 1953 and it overturned in a crash landing.

planned on the 10km International Closed-Circuit speed record and on the evening of 12 April 1948 test pilot John Derry set a new record at 605.23mph.

The target now became the mysterious speed of sound. John Derry explored this unknown region with dives from 40,000 ft, the height required to achieve maximum speed to get through the sound barrier. He achieved this on 9 September when, going down at full speed he completely lost control but became the first British pilot/aircraft combination to break the sound barrier. The aircraft continued its dive despite all attempts by Derry to pull out and he only managed this by selecting the trim flaps. As a result, the aircraft went into an inverted bunt and climbed away.

The probable real reason for recovery was not the operation of the trim flaps, but because the aircraft entered denser air as it got lower which took it out of the compressibility range, the trim flaps assisting in initiating recovery. One other flight achieved the speed of sound but again full control was lost and the trials abandoned. VW120 was later delivered to the RAE at Farnborough for further experimental flying but crashed

Right: VV548 was one of the FB.5s handed over to the Royal Navy. It joined 787 Squadron at West Raynham in September 1949. It had joined Lossiemouth Station Flight by July 1956 when it was painted blue all over as the personal aircraft of Capt. (later Rear-Admiral) P. Gick. Below: The distinctive sharkmouth nose markings of the RAF's No.112 Squadron have been emulated all over the world. Vampire FB.5 VZ304:A-T displays the style that made them famous. (A.W.Hall)





Above: Vampire FB.5 WA346:29 of 3/4 CAACU at Exeter in 1960. It had previously served with No.102 FRS, Nos. 98 Squadron and 130 Squadrons, 7 FTS and 1 FTS. (Authors Collection) Left: Vampire FB.5 VV665 J5-K of No. 3 Squadron in the 2nd TAF, RAF Germany. It moved to No. 145 Squadron but stalled on the approach and dived into the ground at Wahn on 9 July 1953. (H Watson)

on 15 February 1950 in mysterious circumstances, killing its pilot, Sqd Ldr Muller-Rowland.

FIGHTER TO FIGHTER-BOMBER

Using experience gained from the numerous Vampire F.Mk.1 test aircraft, production was changed to the much improved F.Mk.3. Specification F.3/47 was issued to cover production of the F.Mk.3 starting with VF335 being test flown on 4 November 1946. VF343 was used for development with VF345 carrying out service trials.

As the services wanted to use the Vampire at bases around the world, extensive tropical trials were planned. From experience with the Mosquito structure when in hot countries, and as the Vampire fuselage was of similar construction, meant that de Havilland needed to know the effects of excessive temperatures and humidity over long periods in such conditions. For a period of 15 months, August 1948 to October 1949, VG702 and VG703 conducted such trials based in the Sudan, Malaysia and Singapore, Hong Kong and the Philippines.

VG702 was left picketed out for six months in all weathers while VG703 was used to accumulate experience of operating from airfields of different sizes and surfaces. At Taiping the Vampire operated from a semi-flooded grass field. At Ipoh, in front of a crowd estimated at close on 10,000, Flt Lt



Upper left: An interesting picture of a No. 16 Squadron Vampire FB.5 VV226 at Gutersloh in 1949, not long after changing from Tempests to Vampires. No markings had been applied at this stage. (MAP) Left: Vampire FB.5 VV454 after being modified for trials with a reheat Goblin engine in May 1949. The tailplane was raised to a higher position to avoid burns. Trials were conducted later that year but not followed up. VV454 was restored to standard FB.5 condition and delivered to the Air Fighting Development Squadron at West Raynham. (BAe)

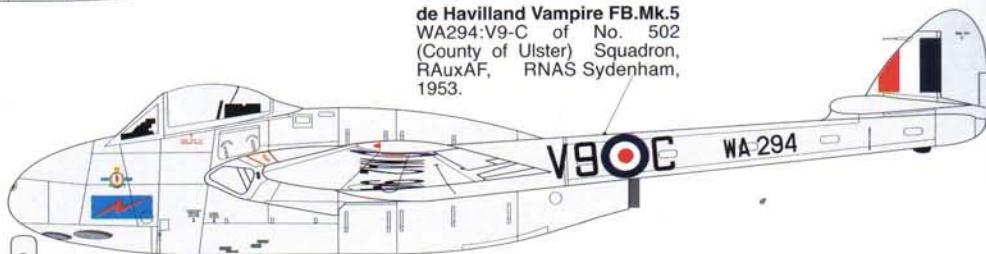


de Havilland Vampire FB.Mk.5
WA442:K of No. 185 Squadron,
RAF Habbaniyah, Iraq in 1953.

No. 185
Squadron
badge



K

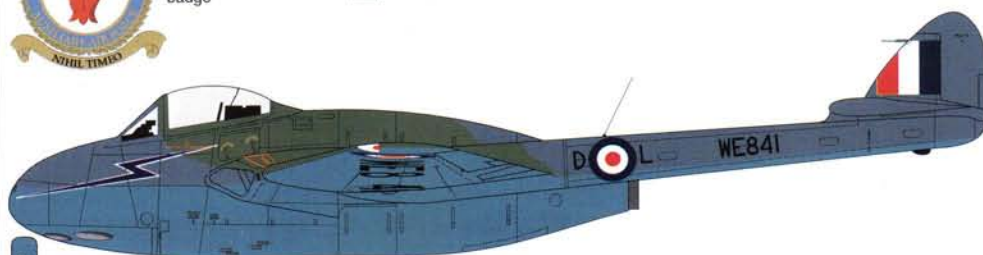


de Havilland Vampire FB.Mk.5
WA294:V9-C of No. 502
(County of Ulster) Squadron,
RAuxAF, RNAS Sydenham,
1953.

C

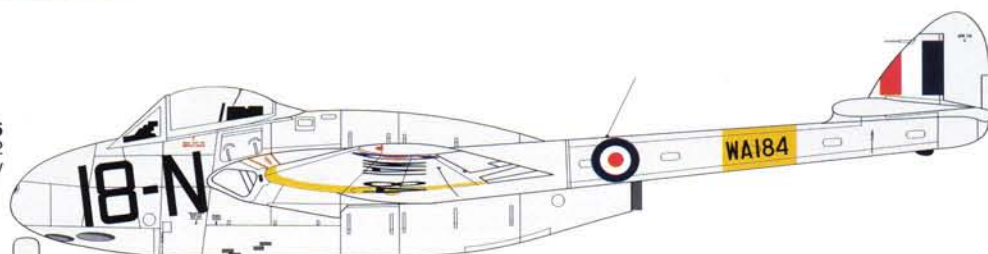


No. 605
Squadron
badge



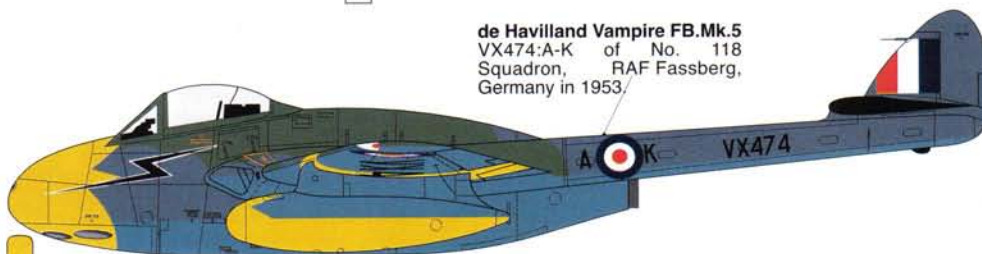
de Havilland Vampire FB.Mk.5
WE841:D-L of No. 98
Squadron, RAF Fassberg,
Germany 1953.

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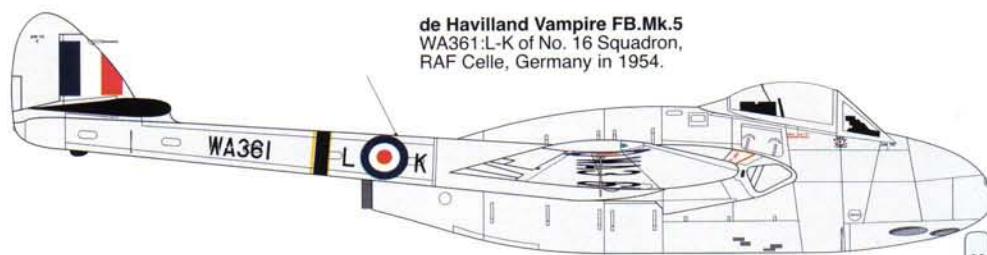
de Havilland Vampire FB.Mk.5
WA184:18-N of No. 202
Advanced Flying School, in July
1953.

18



de Havilland Vampire FB.Mk.5
VX474:A-K of No. 118
Squadron, RAF Fassberg,
Germany in 1953.

K



de Havilland Vampire FB.Mk.5
WA361:L-K of No. 16 Squadron,
RAF Celle, Germany in 1954.

K



de Havilland Vampire FB.Mk.5
WA453:A of No. 602 (City of
Glasgow) Squadron, RAuxAF,
RNAS Abbotsinch, 1954.

A

No. 602
Squadron
badge





A ground technician works on the flaps of Vampire FB.5 VX461:91 of 3/4 CAACU before flight. It had flown with Nos. 26 and 16 Squadrons before joining 8 FTS and in 1960 became 7646M. (N Collier)

Wilson was caught in a downpour. Undeterred he taxied through the rain and took off along the only visible portion of the runway, occasionally disappearing in sheets of water. The tour around Malaya continued, Kuala Lumpur, Butterworth, Alor Star and Georgetown, where he flew along the narrow streets. Taking off from Butterworth on 10 May, the Vampire flew the 385 miles back to Tengah at 493 mph. Flt Lt Wilson had returned to the UK and it fell to Flt Lt Francis AFC to continue the tour. He took off in October for Saigon in VG703 but Saigon was under siege from terrorists. After demonstrating the Vampire he returned to Singapore and then moved on to Bangkok. At Don Muang the Vampire created considerable interest to the Royal Siamese Air Force and representatives of the RAF and US Air Attache. On 15 December he left for Kota Bharu in the Kelantan State where demonstrations took place yet again, mainly

to the Sultan and his family. His next port of call was Hong Kong but in extreme weather conditions Flt Lt Francis missed the airfield and, desperately short of fuel, he made a forced landing on the curved beach at Bias Bay. A passing Sunderland of No. 88 Squadron saw the landing and informed the base before landing to pick up the pilot and to keep watch over the aircraft. A work party was flown out to the beach the next morning in another Sunderland, and found the Vampire undamaged after its forced landing. The beach was not suitable to attempt a take-off so a landing craft was brought up and VG703 loaded on to it. But the sea was by now too rough to transport it so the Vampire was hoisted aboard the cruiser *HMS Belfast* until the next day when a flat-topped lighter came alongside and transported it to the RAF station at Kai Tak.

After a thorough check out VG703 took off and flew around Hong Kong after which it set off on another sales trip to Khartoum, 6,000 miles and 18 hours away. The results from these trials not only satisfied the British services but provided confidence for

potential overseas customers.

However, the decision by the RAF to standardise on the Meteor as its interceptor/fighter ruffled a few feathers at de Havilland, but, undeterred, they immediately offered the Vampire as a low-level fighter-bomber. This really tied in nicely with the interest shown by the Air Ministry in December 1946 for a ground-attack version of the Vampire F.Mk. IV to replace the Tempest.

The Air Staff issued Operational Requirement OR.237 which called for a cruising speed of not less than 290 mph at 5,000ft over 300 nautical miles. An operational altitude between sea level and 20,000ft with a service ceiling of 40,000ft. It was to be capable of operating from basic runway facilities anywhere in the world. Fixed armament remained as four 20mm cannon with 150 rpg, two wing-mounted

No 3/4 CAACU at Exeter Airport was the last unit to fly the Vampire FB.5, with WA236 being grounded on 5 August 1960. WA378:14, seen here, was another FB.5 used by 3/4 CAACU after serving with only one other unit, No. 145 Squadron. (N Collier)





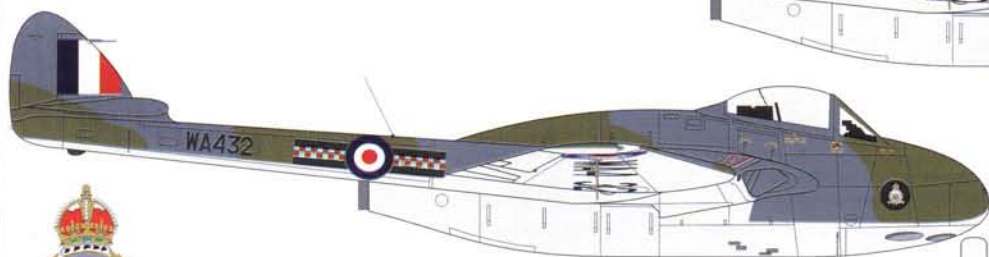
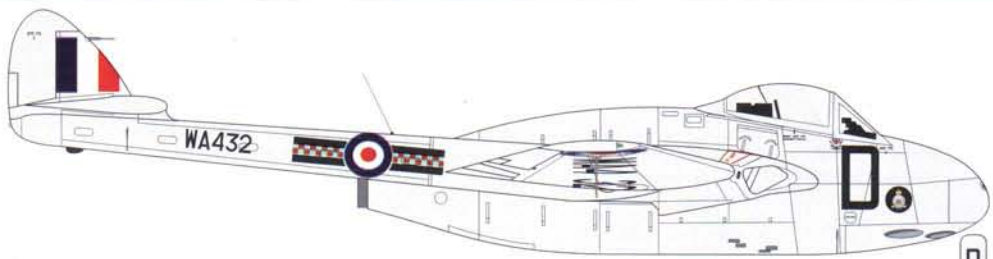
Above: Vampire FB.5 VZ106:E was issued to No. 6 Squadron and is seen here with the squadron crest on the nose and the famous flying can-opener on the rudder. It moved to 233 OCU, where, descending in cloud it flew into a hill eight miles south-east of Llandoverly, Carmarthen, on 9 October 1953. Below: Vampire FB.5 VZ345 devoid of any unit markings despite serving with Nos. 32, 249, 185, 602 Squadrons and finally 2 CAACU. Note the different camouflage demarcation line from the nose. (APN) Above: An



all silver Vampire FB.5 VV719 of 2nd TAF Comm Flight, RAF Germany. No unit markings are visible. (Authors Collection) Below: Still in Fighter Command camouflage Vampire FB.5 WA240 carries the markings of No. 603 Squadron. The bars are pale and dark blue checks with black outers. The faded squadron badge is just discernable at the end of the 3. Before serving with 603, WA240 had served with Nos. 60, 71 and 16 Squadrons. The number 30 is the fleet number of 3/4 CAACU Exeter. (N Collier)



de Havilland Vampire FB.Mk.5
WA432:D of No. 603 (City of
Edinburgh) Squadron, RAuxAF,
RAF Turnhouse, April 1954.

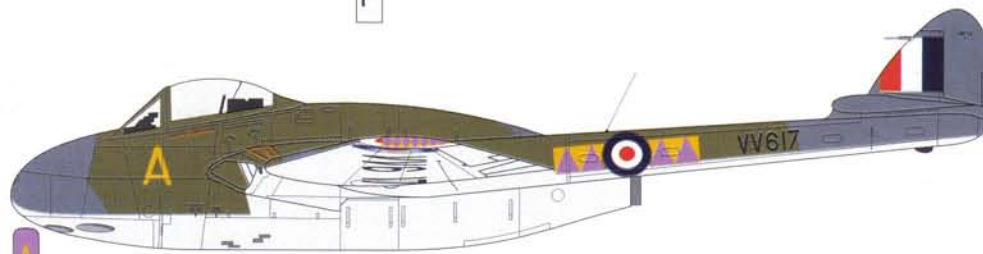
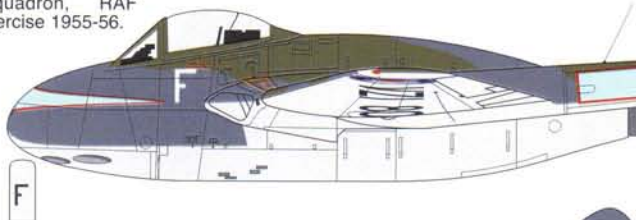


de Havilland Vampire FB.Mk.5
WA432:D of No. 603 (City of
Edinburgh) Squadron, RAuxAF,
RAF Turnhouse in 1955.



No.603
Squadron
badge

de Havilland Vampire FB.Mk.5
VZ180:F of No. 605 (County of
Warwick) Squadron, RAF
Gibraltar on exercise 1955-56.



de Havilland Vampire FB.Mk.5
VV617:A of No. 607 (County of
Durham) RAuxAF, RAF Ouston,
in 1956.



This Vampire FB.9 WR266:B was used by No.607 Squadron RAuxAF. The markings on the booms were unusual colours. The normal pyramids were a pink and the others gold with the code letter in pink. Note the different camouflage demarcation line. Later, WR266 went on to 233 OCU, 5 and 7 FTS.

500 or 1,000lb bombs, eight 60lb rocket projectiles (RP), extra protection around the engine bay to protect it from ground fire, and, an ejection seat.

In January 1947 the Ministry of Supply (MoS) were asking for the Nene for the new aircraft but the Director of Operational requirements (DOR) said that the Nene was 300lb heavier than the Goblin, resulting in a change aft of the Centre of Gravity (CofG). To retain the CofG would mean putting ballast weights in the nose.

Although the planned powerplant for the F.Mk.IV was the Rolls-Royce Nene, this project, despite having a strong Canadian interest, was bedevilled by development problems and cancelled. There was however, still a requirement for something to replace the Tempest. The Ministry decided to go for

a new aircraft based on the F.Mk.3 but incorporating the modifications already mentioned. This meant a 3,000lb thrust Goblin 2 engine, strengthened wings, but shortened by 12 inches, a strengthened longer-stroke undercarriage to cope with the increased weight and an ejection seat. Specification F.3/47 was issued to cover design and in May 1947 the Ministry announced the new aircraft would be designated GA.Mk.5, but later changed it to FB.Mk.5 reflecting its future role. The one problem that could not be resolved easily was the fitting of an ejection seat. The cockpit was not wide enough to take either the Martin Baker or Malcolm seats and would require considerable redesign and tooling. A mock-up of a redesigned metal fuselage using TG338 was tried between April and October 1947 but abandoned.

VF306 was used as a design mock-up for the FB.Mk.5 but in July 1947 all work on the new aircraft had been set back six months due to the untimely death of Geoffrey de Havilland Jnr in the DH.108 accident, plus

other problems in the factory. January 1948 saw the emergence of F.Mk.3 VT818 as the prototype FB.Mk.5 – at last! Meanwhile, VV190 and VV200 were used by de Havilland for engine development with the Goblin 4.

The last production F.Mk.3 VV213 came off the production line with the next aircraft, VV214, being the first FB.Mk.5 which made its maiden flight on 23 June 1948. FB.Mk.5s VV215 and VV216 went to Boscombe Down for handling trials and performance measurements respectively. The Sea Vixen nosewheel steering mechanism was tested on VV217, and VV454 tested a reheated Goblin.

The only FB.Mk.5 powered by a Rolls-Royce Nene engine was VV568 which was sold to France as an FB.Mk.51. VV603 went to the RAE at Farnborough and later joined the fleet of the Royal Radar Establishment (RRE) on 12 July 1951. Two Vampires, VV612 and VV613, were set aside for thin wing trials, but, designated FB.Mk.8s, became the prototype Venom FB.Mk.1s. FB.Mk.5 VV675 was delivered to Boscombe Down on 16 April 1951 to carry out air conditioning trials in hot climates in anticipation of the forthcoming FB.Mk.9, which was destined for RAF Middle East squadrons.

Production so far had been at the English Electric factory at Preston but in 1949 de Havilland started to also build Vampires at Hatfield, the first being VZ808. Changing times saw VZ835 firstly being used to solve ejection seat installation problems and then, Vampire FB.9 WR128:A of No. 502 Squadron. Note camouflage demarcation line with dark green/ocean grey upper surfaces and light grey undersurfaces. Markings were a red lightning flash on a pale blue background with a dark blue border. Individual code letter in red. Under the windscreen area was the squadron badge and Sqd Ldr's pennant. After service with Nos. 185 and 73 Squadrons it joined 502 and then moved to 5 FTS and finally the Middle East Comm. Flight.



after fitting an experimental Vampire night fighter tailplane for spinning trials, went to RAE Farnborough. DH.110 air intake shapes were tested on Preston-built FB.Mk.5 WA172. The last FB.Mk.5 off the English Electric production line, WG847, was followed by the first FB.Mk.9, WG848 which was fitted with Godfrey refrigeration equipment in the wing root for cockpit cooling in hot countries. A total of 1,565 Vampires of Mk.1 through to Mk.9 had been built; apart from 313 at Chester, 33 at Hatfield and eight assembled by Fairey at Ringway, the rest were built at Preston. A considerable number had been diverted to France and other air forces excluding those built for export.

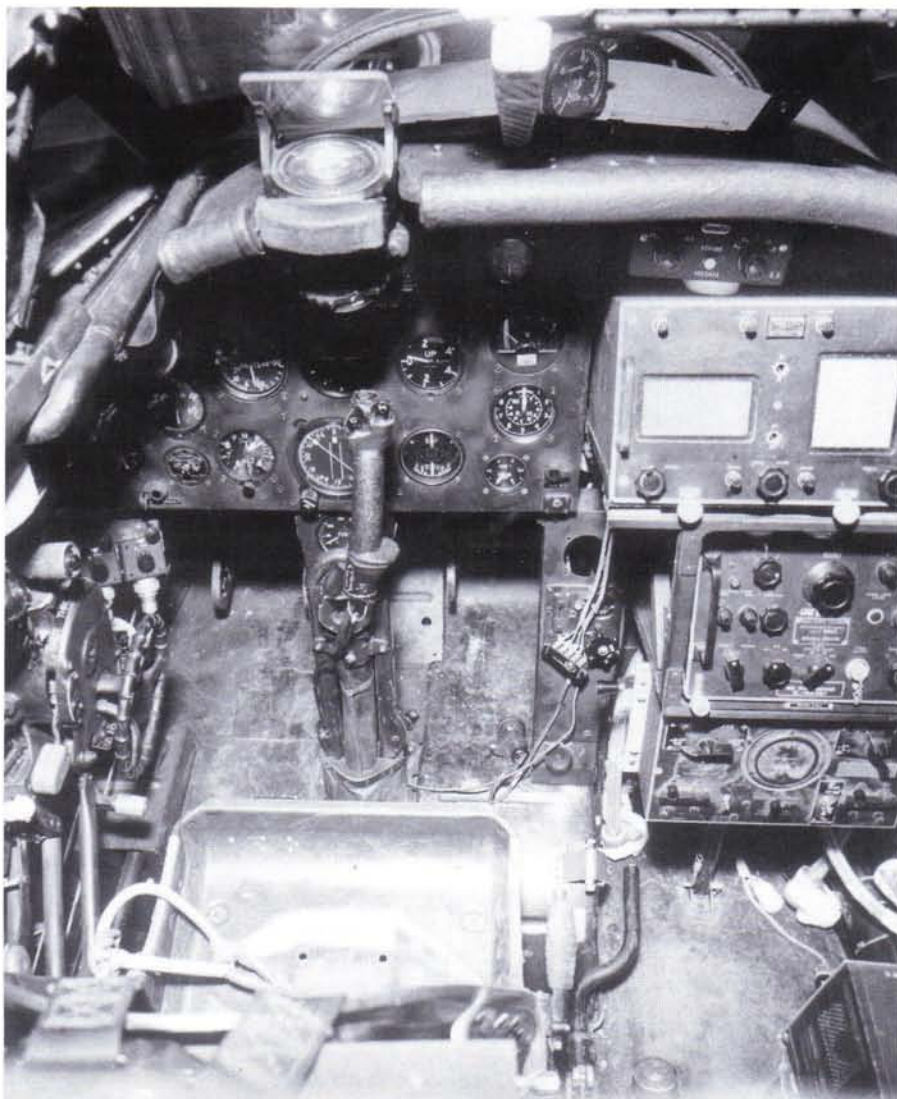
NOCTURNAL VAMPIRE FIGHTER

Specification F.24/48 was issued to provide the RAF with a jet-engined night fighter to replace the outdated piston-engined Mosquito NF.36. Requirements for such an aircraft had started out in 1947 when F.44/46 was issued for a new aircraft capable of flying in all weathers, which of course included the night fighter role.

Following the RAF doctrine that anything flying at night should have two engines, Gloster put forward a cost effective idea of a radar equipped converted Meteor T.Mk.7, having two jet engines and two crew in a tandem cockpit. The design changed a number of times but eventually won the competition against other manufacturers with the Meteor NF.11.

Due to heavy production commitments at Gloster it was developed by Armstrong-Whitworth, who later built 547 Meteor NFs including the Meteor NF.12, 13 and 14. This delayed the time it would take for entry into service and it looked as though the RAF would have to continue even longer with their Mosquitoes.

However, salvation arrived in another form. Despite lack of official interest de



Above: The cockpit of a Vampire NF.10 with the observer's radar panels to the right. The scanner unit of the AI (Airborne Interception) Mk.10 radar was mounted in a one-piece, non-detachable di-electric nose cap moulded from 17 different laminations of glass fibre. (BAe) Below: The prototype Vampire NF.10 in Class B markings, G-5-2, taking off only half painted on 28 August 1949. Fully painted up it took part in the Farnborough Air Show nine days later. (British Aerospace Systems plc)





Preparing Vampire NF.10s of No. 25 Squadron at West Malling for a night sortie. The marking on the boom was silver surrounded by a black line. Note the early style cockpit canopy which was unpopular with crews. (BAe)

Havilland had started working on a jet-engined night fighter in 1947. The DH.113 was a private venture design aimed at the post-war export market for jet night fighters. The success of the Mosquito night fighter series convinced de Havilland's designers that they could transfer a similar cockpit layout to the new jet fighter. Also, it was found that the Mosquito and Vampire fuselage diameters around the cockpit area were nearly the same. By grafting a new forward fuselage nacelle onto a standard Vampire FB.Mk.5 would also reduce the development time, and costs. The extended nose housed the standard AI (Airborne Interception) Mk.10 radar with the four 20mm cannon retained below the cockpit.

Flight trials led to an increased fin area to

help offset the lengthened nose and deletion of the fin acorns. Later, the standard fin shape and the acorns were re-instigated, but the tailplane was extended outwards beyond the fin. Three prototypes were built, G-5-2, G-5-5 and G-5-7, the first being flown at Hatfield on 28 August 1949 by Geoffrey Pike. In September it was demonstrated at Farnborough and so impressed the delegates from the Egyptian Air Force that they ordered 12 the following month. However, at that time the export of arms to Egypt was banned by the British Government and the order was cancelled.

The RAF had already ordered the forthcoming Meteor and Venom night fighters and had no place in its inventory for what was an outdated aircraft. During trials at

Boscombe Down the main criticism was the inadequate facilities for evacuation by the crew in case of an emergency. Ejection seats were not fitted, but ironically, they were not fitted to the Meteor NFs either!

However, the Vampire night fighter proved to be a better gun platform and had a longer range. The Venom night-fighter programme was behind schedule, and to plug the gap until deliveries were started, it was proposed that the unwanted Vampire night-fighter be used as an interim type pending delivery of the Meteor and Venom NFs. Designated Vampire NF.Mk.10 the first were delivered to the RAF during July 1951. Production ran to 95 NF.Mk.10s, of which WP232 and WP240 went to Boscombe Down for trials, WP236 joined the Handling Squadron at

RAF Manby for preparation of Pilot's Notes and WP240 later tested the Sea Vixen radome shape.

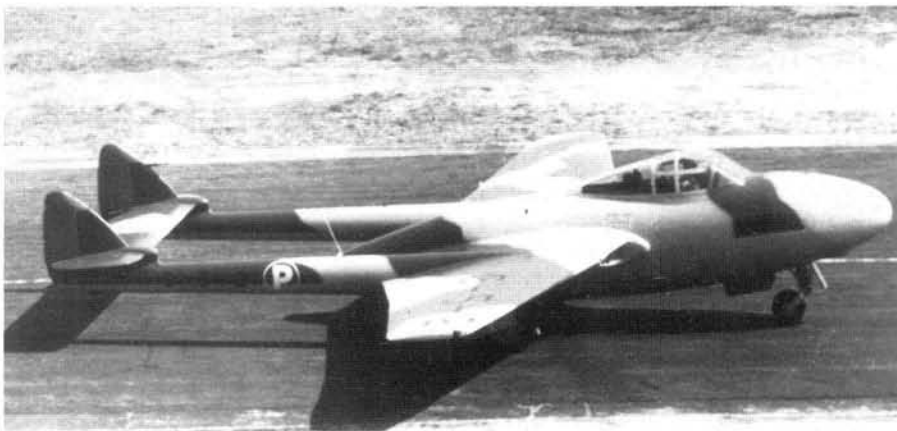
WP250, on loan from the Ministry of Supply, was used by Handley Page between 1953-56 for development of boundary layer suction laminar flow aerofoils. Handley Page had been involved in such research since 1949 using models tested in the wind tunnels at the National Physical Laboratory. This was a follow on to the work previously done in 1953-55 by Sqd Ldr (later Dr) M R Head in conjunction with Cambridge University, where they flew a Vampire F.Mk.3 VT858, fitted with completely porous but similar wing gloves. Basically, the aim was provision of laminar flow on any military or commercial aircraft, but in particular long-range aircraft. If a laminar boundary layer of air can be maintained over an aerofoil surface, instead of a turbulent one, skin friction drag could be reduced by up to 80 per cent. This would give a much lighter and cleaner aerofoil which would be less costly to operate. A special five foot wide test section was mounted on the upper port wing surface outboard of the engine intake. Known as a glove wing, it incorporated 39 spanwise suction surface strips whereby a small amount of boundary layer air was drawn into ducts beneath the wing surface. A dummy glove was fitted to the starboard wing to maintain flying symmetry. To make room for the installation and instrumentation, some of the internal fuel tank was removed, but loss of capacity was made up by fitting external under wing tanks. These interfered with the airflow so they had to be removed, resulting in shorter sortie times.

Some 27 hours of flying was involved spread over 20 months before the project itself was overtaken by progress. The laminar flow wing work was all done on straight wing aircraft, the next generation of aircraft having swept wings needed another think. However, laminar flow wing drag is still used on transport aircraft, low speed gliders and composite light aircraft.

No. 25 Squadron, based at West Mallang, became the first to operate the new Vampire NF.10s when WP233, WP234 and WP237 arrived to replace their Mosquito NF.36s on 26 July 1951. September of that year saw both Nos. 23 and 151 Squadrons, based at Coltishall and Leuchars respectively, re-equipping with the Vampire NF.10s. Deliveries were slow but this allowed time for the crew conversions from the Mosquito and to build up experience on the new type.



Above: The first prototype NF.10 G-5-2 which Geoffrey Pike flew on 28 August 1949, and has the original tailplane layout. It was re-serialised WP256 and joined No. 23 Squadron for a short time before going to 2 ANS and scrapping in September 1959. Stencilled on the nose is De Havilland Vampire Night Fighter, and yes, that is a Short Sealand in the background at the SBAC Farnborough air show in 1949. (APN) Below: A later picture of prototype Vampire NF.10 G-5-2 after the tailplane extension had been added to improve stability. The legend on the nose has gone. (APN)



No. 25 Squadron demonstrated their new aircraft to the press at West Mallang in February 1952, along with the first Meteor NF.11s of No. 85 Squadron, also based there. The RAF, and Fighter Command in particular, wanted to show that they could now defend the country at all times with jet powered day, night and all weather fighters. Although popular with the aircrews, the NF.10's Achilles heel was the absence of ejection seats and the difficulty of entering and exiting the cockpit through a fairly narrow area restricted by the hinged upper section of the canopy.

It was found it could actually fly faster and higher than the Meteor; the only interception problem being the Canberra, which could swan along above the NF.10's ceiling. Based

on experience with previous models of the Vampire, serviceability and reliability was good, the only downside being that the fuselage was fairly low slung and ground clearance for ground tradesmen poor. Armourers for instance had to lie flat on their back to access and then lower panels to service the four 20mm guns. This was a common problem experienced on all the Vampire/Venom family.

To test their defence capability the NF.10s regularly participated in a number of practice interceptions both at night and during the day. No. 23 Squadron took part in operational deployments overseas including 'Exercise Holdfast' during September 1952 when five NF.10s deployed to RAF Fassberg in Germany. Later that year they were based on Malta for a series of mock attacks on shipping during 'Operation Longstop'.

Sharing Coltishall with No. 23 Squadron was No. 141 Squadron with their Meteor NF.11s. In deference to the long gestation period of deliveries and entry into service with the NF.10s, and after a particularly successful party in the officers mess, crews from 141 painted yellow training bands round the wings and tail booms of 23's NF.10s. During the slow build up of squadron strength for No. 151 Squadron some of the crews had trained with No. 23 Squadron before joining 151. For some of



Full frontal! At Hatfield showing the fine lines of the Vampire NF.10 in November 1951. This one

An excellent birds eye view of Vampire NF.10 WP250 with the wing gloves fitted by Handley Page for research into boundary layer control. Note the tailplane extensions outside the fin and rudder. It was scrapped in 1960. (Handley Page Association)

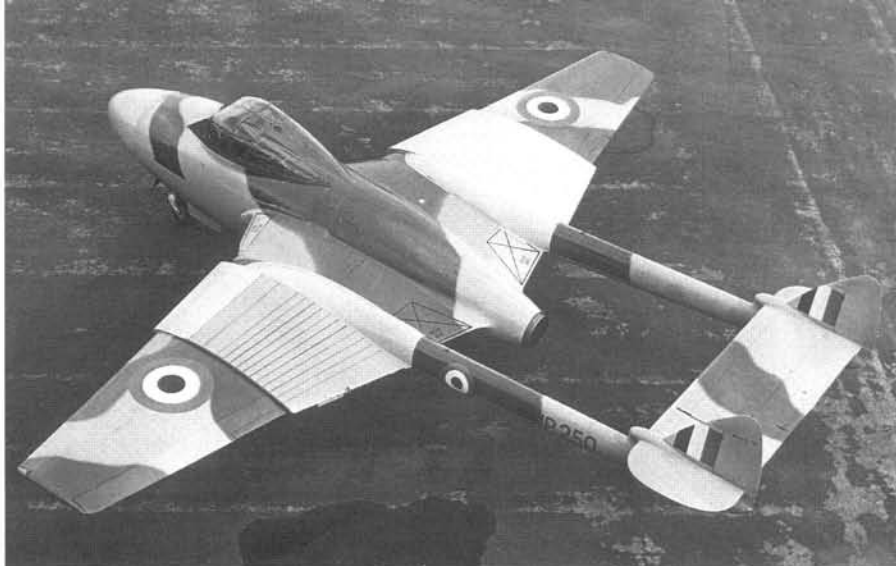
the crews it was a short lived relationship for in mid-1953 No. 151 Squadron began to replace its NF.10s with the Meteor NF.11. No. 23 Squadron followed in November and began to receive its successor, the Venom NF.2, the following January. Meteor NF.12s began to replace No. 25 Squadron's NF.10s during April 1954 ending what must have been one of the shortest periods in service for a front line aircraft – barely two and a half years.

Most of the NF.10s went to Maintenance Units where they joined others that had flown in from the factories with very few flying hours. Around 30 NF.10s were sold back to de Havilland for refurbishment and sale to the Indian Air Force as NF.54s. Sixteen were sold to the Italian Air Force, and one example went to Switzerland in an effort to get them to buy NF.54s to operate alongside their other Vampires but no orders were received.

More than 30 were converted as advanced navigational trainers by Airwork General Trading at Speke (Liverpool) and Gatwick Airports. The conversion included removing the AIMk.10 radar from the nose and replacing it with Rebecca 3 and Gee 3 navigational radar in new mountings. The four 20mm cannon were retained to minimise any centre of gravity problems, but even so, extra ballast had to be added inside the nose radome. The cockpit needed to be rebuilt and a clear view canopy fitted, similar to those being fitted to the Venom NF.2A and NF.3. There were no ejection seats but a quick jettison device released the hood.

The first pair of NF.(T)10s were WM713 and WM729 with the latter being delivered to No 2 Air Navigational School (ANS) at

Right: In September 1949 No. 73 Squadron, based on Malta, was tasked to fly five Vampire F.3s to Italy to 'show the flag' as they were intending to buy Vampires. All five crashed (see text) including this one VT855:B which lost its undercarriage. Below: Vampire NF.10 WM666 of No. 151 Squadron in 1952. It has the earlier style canopy. The following year it was to join the Indian Air Force as ID603. (Via D Watkins)

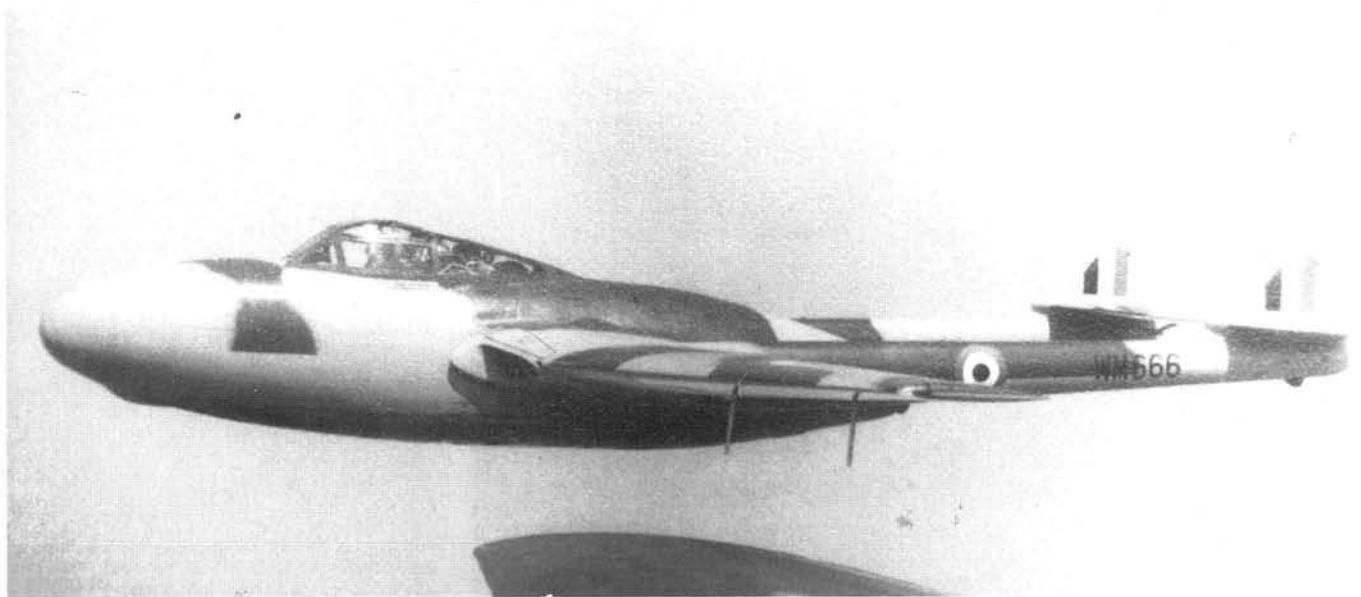


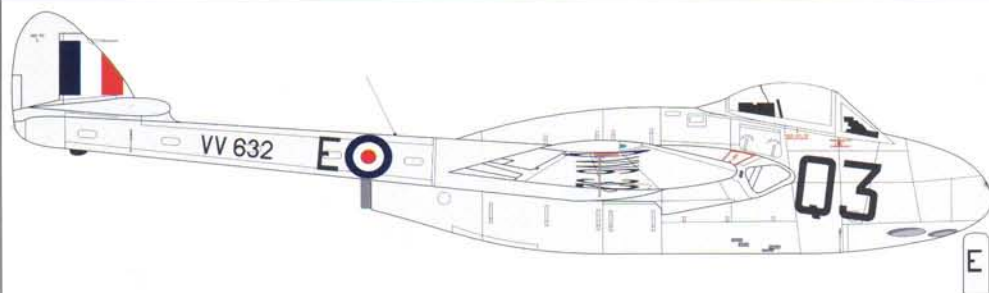
RAF Thorney Island on 25 May 1955. Because of the work involved in the conversions deliveries were slow and it was the end of the year before any appreciable numbers were in use. The aircraft had retained their grey/green fighter camouflage but had yellow training bands applied to the wings and tailbooms. In 1958 No 2 ANS repainted some of the NF.10s in Training Command silver with yellow training bands, joining Vampire T.11s being delivered in the same colour scheme.

A number of unconverted NF.10s had also been supplied to the Central Navigation and Control School (CNCS) at Shawbury. Here

they were used in navigational training techniques and the boring job of swanning around the circuit for trainee air traffic controllers. As more NF.(T)10s became available they gradually replaced these older machines at CNCS.

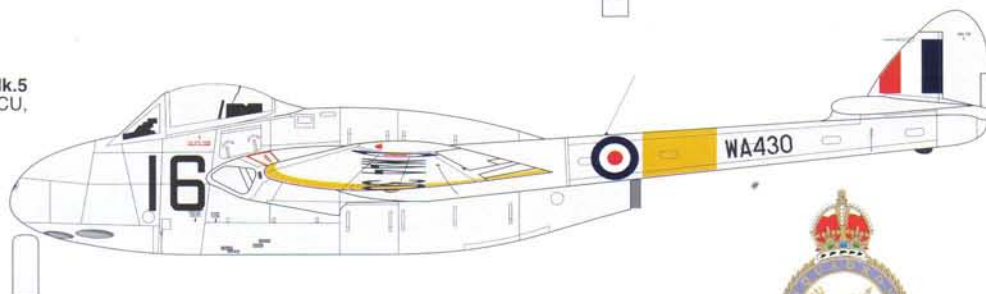
No 1 Air Navigation School was reformed at Topcliffe in March 1957 with a mixed fleet of Vampire NF.10s, Marathons and Valetta T.3s. The Vampires were used for the final high speed training of radar operators who would later go on to Javelin all-weather fighters. However, their service life came to an end during mid-to-late 1959 when they were withdrawn and scrapped.





de Havilland Vampire FB.Mk.5
VV632:E of No. 613 (City of
Manchester) Squadron, RAux
AF, Ringway in February 1951.

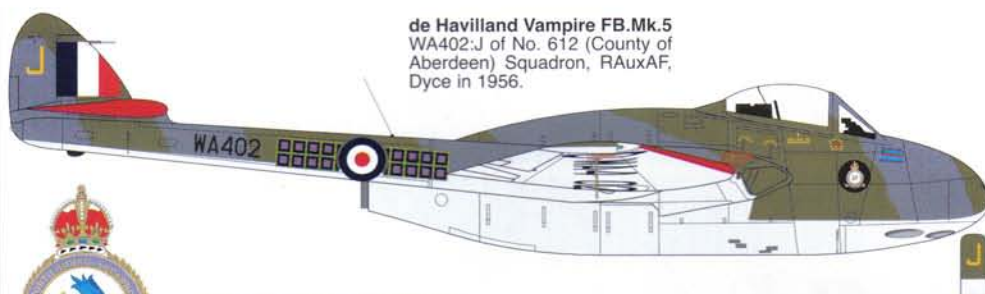
de Havilland Vampire FB.Mk.5
WA430:16 of No. 3 CAACU,
Exeter in the mid-1950s.



de Havilland Vampire FB.Mk.5
WA402:J of No. 612 (County of
Aberdeen) Squadron, RAuxAF,
Dyce in 1956.

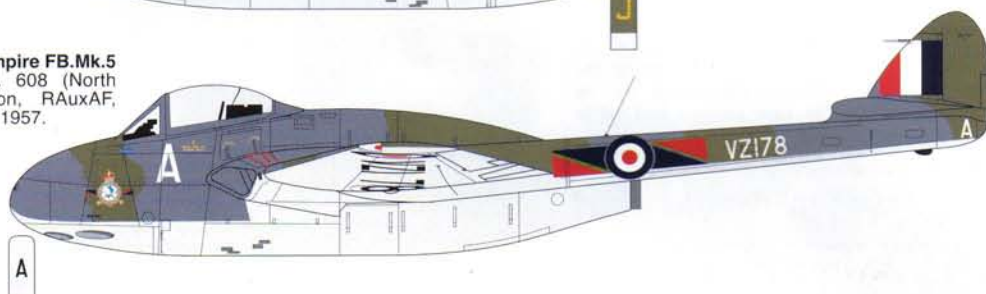


No.612
Squadron
badge

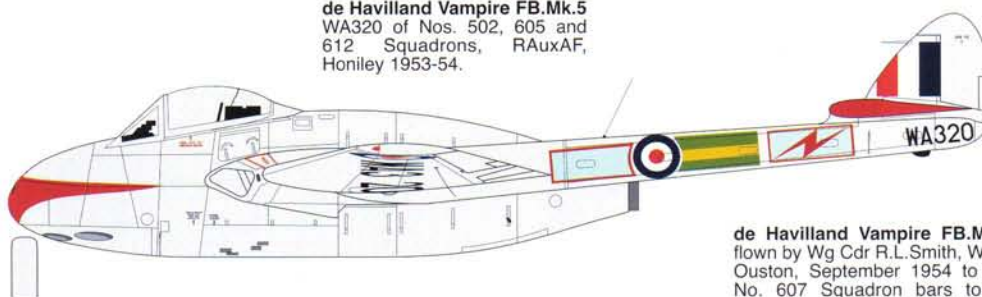


No.608
Squadron
badge

de Havilland Vampire FB.Mk.5
VZ178:A of No. 608 (North
Riding) Squadron, RAuxAF,
RAF Thornaby in 1957.



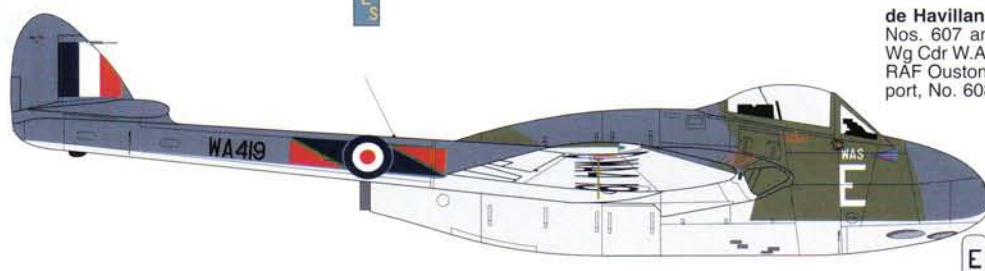
de Havilland Vampire FB.Mk.5
WA320 of Nos. 502, 605 and
612 Squadrons, RAuxAF,
Honiley 1953-54.



de Havilland Vampire FB.Mk.5 VZ305:RLS
flown by Wg Cdr R.L.Smith, Wing Leader, RAF
Ouston, September 1954 to February 1955.
No. 607 Squadron bars to port, No. 608
Squadron bars to starboard.



de Havilland Vampire FB.Mk.5 WA419:E-WAS of
Nos. 607 and 608 Squadrons, RAuxAF. Flown by
Wg Cdr W.A.Smith DFC, AFC, Officer Commanding
RAF Ouston in 1956. No. 607 Squadron bars to
port, No. 608 bars to starboard.





Above: The prototype Vampire Trainer in Class B markings G-5-7 and still in its overall silver finish. First flight was at Christchurch on 15 November 1950 with John Wilson at the controls. There were no problems with the flying characteristics and the T.11 went straight into production. (BAe) Right: The sixth T.11 off the production line WZ419, was used by de Havilland to test the new canopy and other improvements, including the installation of ejection seats. It eventually became 7420M. (BAe)

VAMPIRE TRAINERS

When all the operational equipment was removed from the Vampire NF.10 and it became a trainer, it seemed a logical step to offer the MoS a slightly more refined version that not only provided jet pilot training, but included other skills required. Provision

Nice 'atmosphere' picture of XD526:42 being refuelled. It had started out in 1954 with the Central Flying School coded IP. (Author)





1. Vampire T.11 XD506:Z of the CNCS Shawbury on display at the Royal Review of the RAF's 50th anniversary at Abingdon 1968. (MAP) 2. WZ476 in the strip dayglo markings. It flew with 233 OCU, 2nd TAF Comm Flight, No. 20 Squadron, Oldenburg Station Flight, 2 CAACU and RAF Cranwell. 3. Some Vampire T.11s were shared, such as XE888 with Nos. 43 and 151 Squadron markings at RAF Leuchars. Later on it joined 3/4 CAACU at Exeter. 4. RAF Cranwell used T.11 WZ617:61 shown here with the pale blue band around the booms with a darker blue surround. The nose marking extending under the 61 is orange, and there is a College badge on the nose. (MAP) 5. WZ421 sporting the black and yellow checks of No.63 Squadron. Note that they are repeated on the wingtips. Most T.11 sorties were of short duration so drop tanks were not fitted unless for a longer journey. 6. T.11 XH309 was used by the Instrument Rating Flight at RAF Bruggen, Germany in 1956. The legend on the nose states this fact. (MAP)

uration the first flight was made from the grass runway at Christchurch on 15 November 1950, the pilot being John Wilson. Flight trials proved the design and the prototype became WW456 for service trials. After extensive flight testing at No. 204 Advanced Flying School (AFS) and the Central Gunnery School (CGS) the aircraft was ordered for the RAF as the Vampire T. Mk 11.

No less than 804 T.11s were built, including 535 for the RAF and 73, as Sea Vampire T.22s, for the Royal Navy. Well over 300 were sold for export, mainly as T.55s, with numerous others built under licence. The T.22 was ordered as a result of trials carried out by two pre-production Christchurch built

aircraft, WW458 and WW461, at RNAS Culham during January to May 1952.

The RAF's first T.11, WZ414, first flew at Christchurch on 19 January 1952 and was followed by a further 25 before production was switched to the Chester factory. WZ414 went to the Empire Test Pilot's School (ETPS), WZ415 and WZ417 were delivered to Boscombe Down for evaluation and WZ419, first flown on 27 March 1952, was used to evaluate a new clearer view upward opening canopy, improved fin shapes with a dorsal fairing and at last, ejection seats.

A distinctly colourful T.11 WZ518 still with its original canopy. Coded 18 it served with No.14 Squadron, 2nd TAF Comm Flight and the Station Flight at Oldenburg. It was sold in October 1967 and survives at the North East Aviation Museum.

of two 20mm cannon would allow gunnery training; hard points would allow rocket projectiles (R/P), bombs and long range fuel tanks to be fitted. Full dual controls and blind flying panels in the cockpit included reflector gunsights for both sides. Power was a 3,350 lb Goblin 3 with the structure as for the NF.10, consisting of a wooden fuselage mated to metal wings and tail booms. The hood was as for the NF.10 but there were still no ejection seats.

The prototype, G-5-7, was built as a private venture with traditional fin and rudder shapes but the outboard tailplane extensions had gone, and the bullet shaped fairings





Vampire T.11 XE960 displaying the arrowhead style of marking used on No. 8 Squadron's Venoms during 1958-60. The colours, top to bottom, are sand, blue and red. (Author)

First flight of the modified aircraft was 4 April 1954 after which it was used as a development aircraft and ending its days as a maintenance airframe 7420M. The changes were introduced on the production line from the 144th aircraft with earlier built T.11s being retrofitted later.

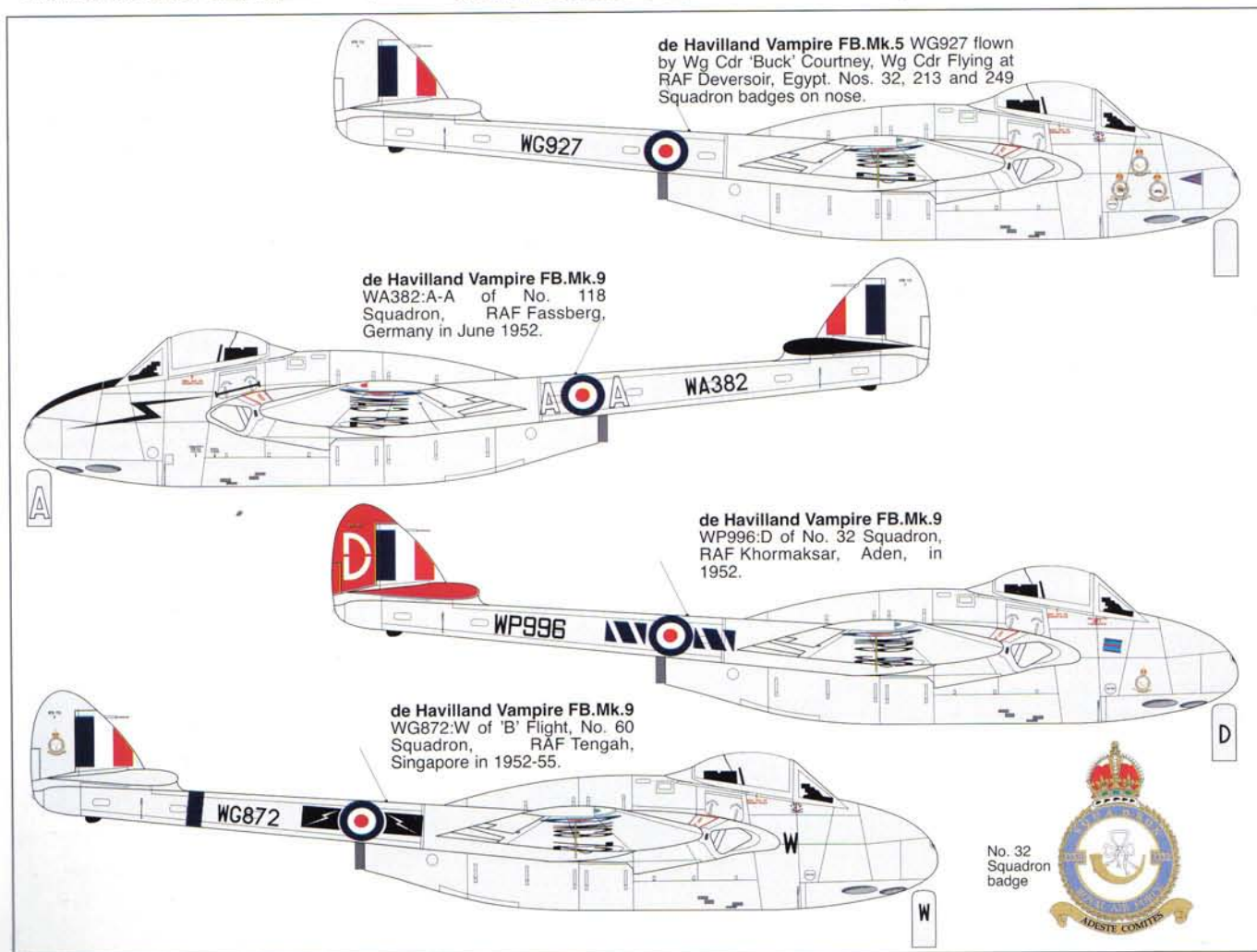
In a sales orientated campaign the Vampire

Trainer demonstrator G-AOXH was shipped to Buenos Aires in late 1956 in an effort to get orders from South America. The aircraft was shipped out, moved to the Argentine Air Force base at Moron, and after re-assembly, was flown by George Errington on 15 December. Flight demonstrations started on 21 December at Moron to Argentine Air Force and Navy personnel, moved 350 miles to Espora and Bahia Blanca the next day and then on to Punta del Indio.

On the 28 December G-AOXH crossed the

Andes at 34-35,000ft to the Chilean Air Force base at Santiago. Following further demonstration flights it flew on to Lima for the Peruvian Air Force to have a look at. G-AOXH returned via Montivideo, allowing the Uruguayan Air Force and Navy a look, returning to Buenos Aires by 7 March. On 16 April 1957 G-AOXH crossed the Andes again on its way to Santiago where it was handed over to the Chilean Air Force.

Early RAF jet training at flying and weapon schools was carried out using sin-



gle-seaters such as the FB.Mk.5 and FB.Mk.9. This was not conducive to good training where ideally the instructor and pupil sat side-by-side. Also, it was recognised that in the jet age that weapons trainers at least must match the performance of the operational aircraft.

The introduction of a modern two-seat jet trainer had long been awaited. Initial deliveries to the RAF began on 2 September 1952 when the first T.11 joined No. 202 AFS at Valley, and five T.11s going to the CGS on 4 September 1952. Other early recipients were the APS units at Acklington and Sylt, No. 233 OCU at Pembrey and No. 220 OCU at Chivenor. These were followed in 1953 by Nos. 206 AFS at Oakington and 208 AFS at Merryfield. The introduction of the piston-engined Provost meant that RAF pilot training moved from the Prentice-Harvard-Meteor route to just a Provost-Vampire T.11 route, eliminating one stage.

The first advanced pilot flying course using the Vampire T.11 began at No. 5 FTS Oakington during June 1954. The older AFS had by now been replaced with a more modern FTS with most being renumbered, an example being No. 202 AFS which became No. 7 FTS. The introduction of the Jet Provost meant that the RAF became the first air force in the world to have all through jet training, although piston-engined trainers continued to be used for pre-course grading.

Vampire T.11 XK637 was the last for the RAF, being delivered with XK636 to 19 MU at St Athan on 27 November 1956. As numbers of T.11s in service increased some were allocated to fighter squadrons and other units for instrument and continuation training while others became 'hacks' for communication duties.

Vampire T.11s gradually replaced its predecessors, the NF.10s, at CNCs and air traffic controllers school at Shawbury. In the early 1960s T.11s joined Vampire FB.Mk.5s at No. 3 CAACU at Exeter airport.

XD547 displays the markings applied to T.11s towards the end of their lives. Z-Zebra was in use with CATCS at Shawbury in 1970. (MAP)



Above: Dayglo strips were introduced on training aircraft as this picture shows on T.11 XK590:45. (Authors Collection) Below: This Vampire T.11 XE890:63 displays the high visibility markings tried before going over to the strip style. (Authors Collection)



Replacing Mosquito TT.35s, the Vampires providing a more realistic high-speed low-flying jet aircraft for Army and Navy gunnery training.

The arrival of the Folland Gnat heralded the demise of the T.11. By 1965 the only RAF unit still operating Vampire T.11s for pilot training was No. 1 FTS at Linton-on-Ouse, who also ran courses for overseas student pilots. In January 1966 a small batch of T.11s from 27 MU was delivered to No. 7 FTS at Church Fenton before moving to No. 3 FTS at Leeming that November. This was

known as the Vampire Flight. On 29 November 1967 the last RAF Vampire T.11s of No. 3 FTS were withdrawn from service.

On 4 January 1968, following a small display by Flt Lt Reg Drown in XD515, the Vampire Flight was disbanded. The last T.11, XD550 was flown to Shawbury on 8 January 1968 – the end of an era in RAF flying training.

With surplus machines on their hands, Hawker Siddeley Aviation gave around 40 T.11s away to ATC squadrons, schools and museums. Many did not survive the harsh





Above: The caricature of a fighting cock on the nose of XE897 indicates that it belonged to No.43 Squadron confirmed by the black and white checks on the boom. (MAP) Right: The later colour scheme for the Vampire T.11 enhanced its appearance – as shown to good effect with XE920:D of the Central Air Traffic Control School, Shawbury. Note the coloured fin tips. (APN)

English weather when left outside and only a few survived, a sad end for a machine that had trained some 3,000 RAF pilots.

NAVAL VAMPIRES

Early in 1944 the Admiralty raised the question about operating jet aircraft, and in particular the Vampire, from the decks of aircraft carriers. The Aerodynamics (Aero) Flight of the RAE was responsible for testing the suitability of jet aircraft for naval use and at that time their fleet included two early Meteors, Gloster E.28/39 and a Bell YP-59A Airacomet.

The second prototype Vampire, LZ551/G, joined this unit to assess its deck landing capabilities and whether it would be suitable for naval pilots to fly. Before joining Aero Flight LZ551/G had been modified to increase its drag when flaps and air brakes were extended. The idea was to lower the stalling speed and eliminate ground effect float caused by the Vampire's low wing and short undercarriage legs. To achieve this the chord of the air brakes was increased by eight inches and the flap area by 40 per cent.

The Commanding Officer and chief naval test pilot of Aero Flight in May 1945 was Lt Cdr Eric Brown, a naval pilot of wide experience, including flying captured German jet aircraft. After test flying LZ551/G Lt Cdr Brown recommended the Vampire as suitable for deck landing trials and asked for a few modifications including improvements to the arrestor hook. The Vampire returned to

Centre right: It was unusual for squadron markings to be applied to squadron training aircraft or the 'hack'. The RAuxAF more than most applied their unit markings as seen on this T.11 XD506. Right: T.11 XD624 in the markings of No.19 Squadron – the checks being blue and white. It later moved to Shawbury in use with CATCS and CNCS, eventually being passed on to the Macclesfield College of Further Education. (MAP)

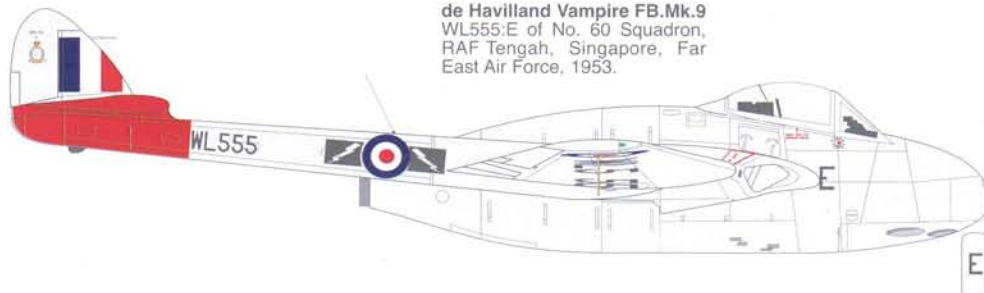




No.249
Squadron
badge

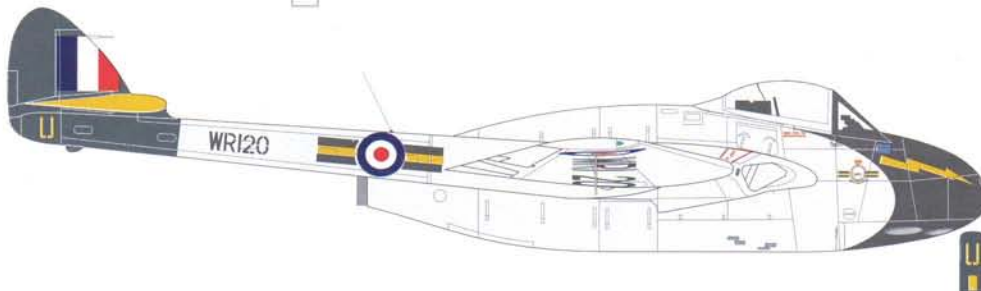
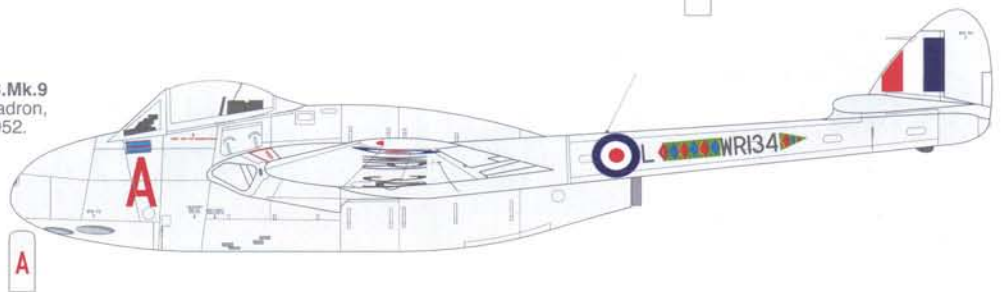


de Havilland Vampire FB.Mk.9
WR123:G of No. 249 Squadron,
RAF Deversoir, Egypt, in 1952.



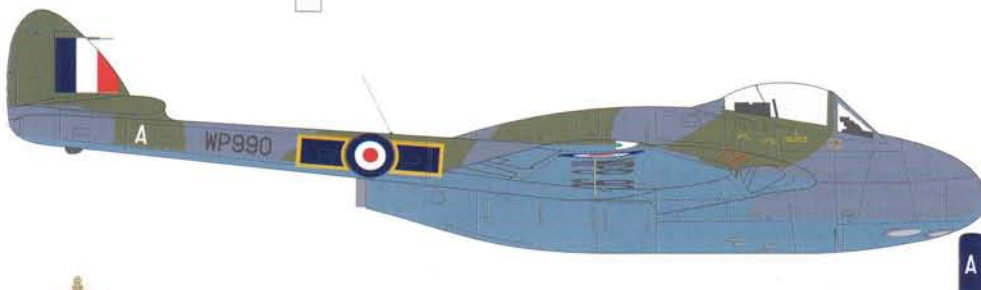
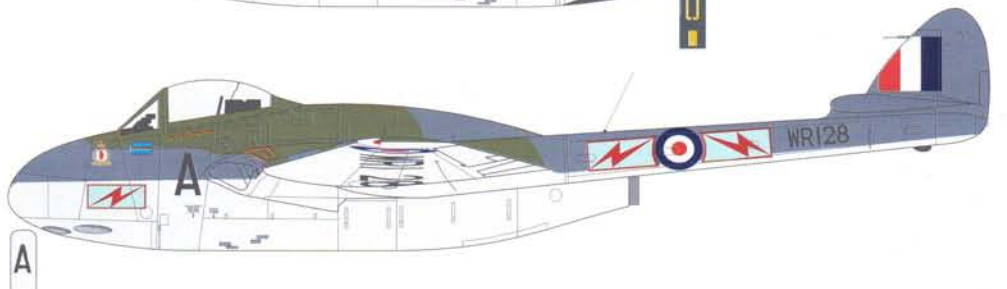
de Havilland Vampire FB.Mk.9
WL555:E of No. 60 Squadron,
RAF Tengah, Singapore, Far
East Air Force, 1953.

de Havilland Vampire FB.Mk.9
WR134:A of No. 20 Squadron,
RAF Church Fenton, in 1952.



de Havilland Vampire FB.Mk.9
WR120:U of No. 213 Squadron,
RAF Deversoir, Egypt, in 1954.

de Havilland Vampire FB.Mk.9
WR128:A of No. 502 (County of
Ulster) Squadron, RAuxAF,
RNAS Sydenham, 1955.



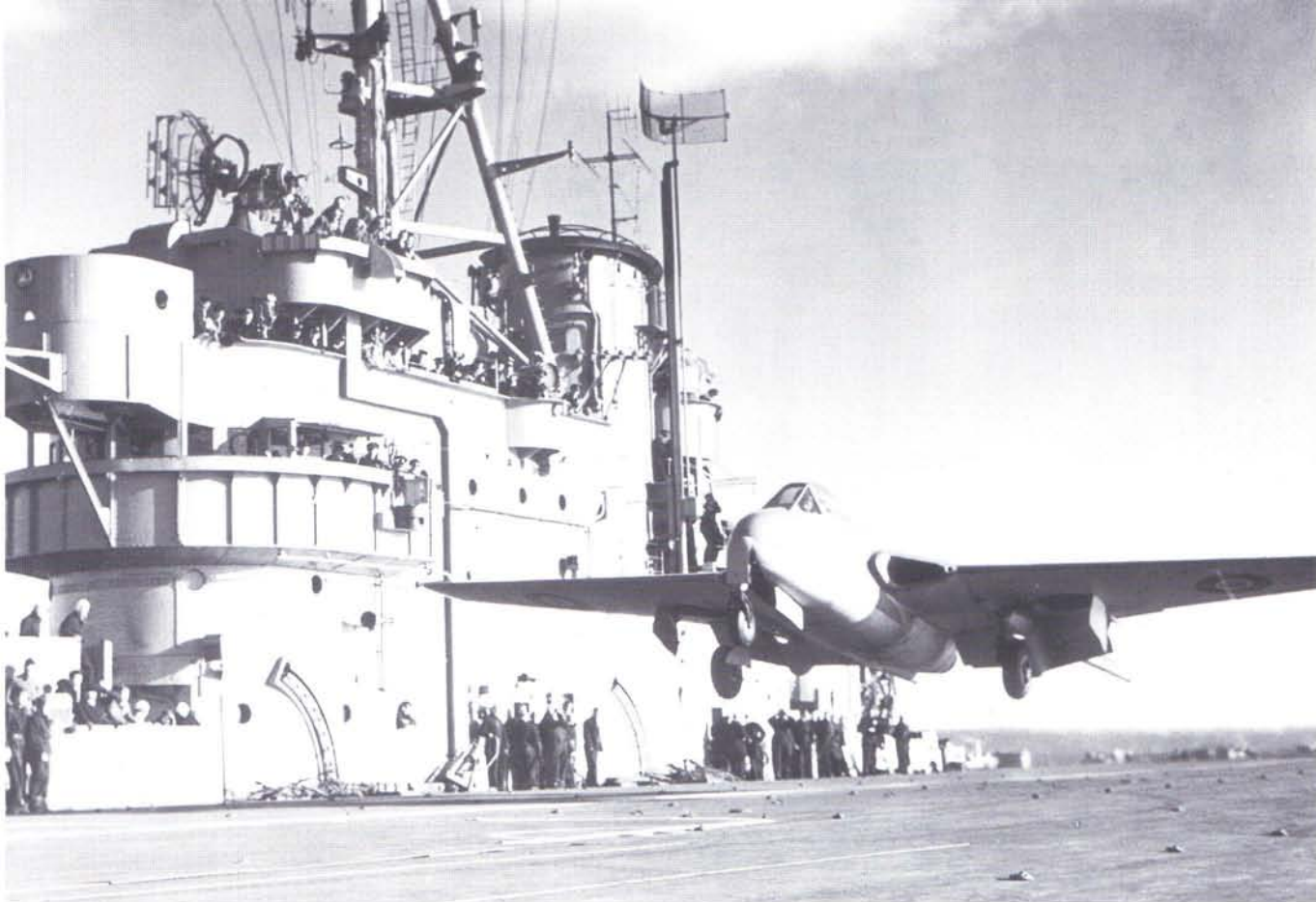
de Havilland Vampire FB.Mk.9
WP990:A of No. 28 Squadron,
RAF Kai Tak, Hong Kong, Far
East Air Force, late 1955.



No.8
Squadron
badge



de Havilland Vampire FB.Mk.9
WL559:P of No. 8 Squadron,
RAF Khormaksar, Aden in 1956



Above: Vampire F.Mk.1 LZ551/G landing on *HMS Ocean* 3 December 1945 by Lt Cdr Eric Brown DSC. It was the first jet landing aboard a carrier. (BAe) Right: The first jet to land on a carrier looking in a sorry state, no engine, no nose-wheel, at RNAS Yeovilton in 1966. It had been made Cat.E (scrap) 13 August 1947 and sold to de Havilland, who passed it on to the Imperial War Museum and has now become one of the exhibits at the FAA Museum. (via Tony Buttler)

Farnborough on 1 October 1945 with a faired in V-style hook, only to have it pulled out nine days later when the trials started. LZ551/G returned yet again to Christchurch for hook strengthening mods.

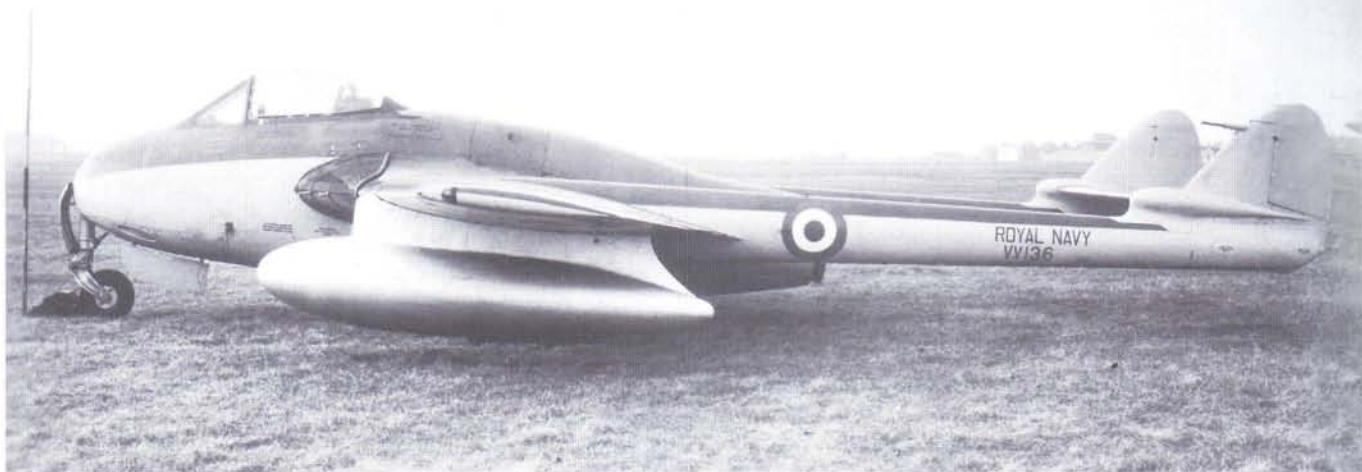
Other updates included a tear-drop style canopy, replacement of the 2,700 lb thrust Goblin 1 with a 3,000 lb thrust Goblin 2. To avoid position errors at large angles of attack the pitot tube was moved from the fin to the port wing. Lt Cdr Brown flew down to Ford aerodrome to carry out some Aerodrome Dummy Deck Landings (ADDLs) before



making the world's first landing on a carrier by a jet aircraft. This was achieved on 3 December 1945 when Lt Cdr Brown landed LZ551/G aboard *HMS Ocean* just off the Isle of Wight.

In June 1946 a further set of trials were completed by the pilots of the Naval Test Squadron based at Boscombe Down when they flew aboard *HMS Triumph*. Extensive deck trials followed over the next six months and, in general, the test pilots felt that naval pilots would not have a problem

One of the FB.5s VV548 that were used by 787 Squadron at West Raynham 1949-52. It joined the Lossiemouth Station Flight in mid-1956 where it became the personal mount of Capt (later Rear-Admiral) P. Gick and painted blue all over. It was scrapped in 1958.



flying the Sea Vampire.

Following this, LZ551/G joined 778 Squadron in September 1946, being the Service Trials and Carrier Trials unit. LZ551/G was damaged landing on *HMS Illustrious* in November 1946 and after repairs at Hatfield went to the RAE for barrier trials. At the end of all this their Lordships at the Admiralty decided that the Vampire would be unsuitable as a naval front-line fighter. Its main problem was the poor engine response to throttle input and a fuel capacity that limited flight endurance. It would, however, be a good introduction to jet flying for naval pilots.

Specifications 45/46P and 46/46P were issued together to cover the design requirements which included necessary modifications for acceptance into naval service. On 21 March 1947 the Admiralty ordered 30 Sea Vampire F.20s, but in January 1948 reduced this to 18 aircraft. Built at Preston as Vampire FB.Mk.5s they were flown to Hatfield for conversion to F.20s. Numerous

changes and mods took place including clipped wings with fitted accelerator points; a V-style arrestor hook in a fairing above the jet pipe; air brakes increased in area by 31 per cent; split trailing edge flaps increased in area by 31 per cent, being a rearward extension with plates added; a long-stroke undercarriage leg which could withstand a downward vertical velocity of 16 ft/sec – the strongest known at the time.

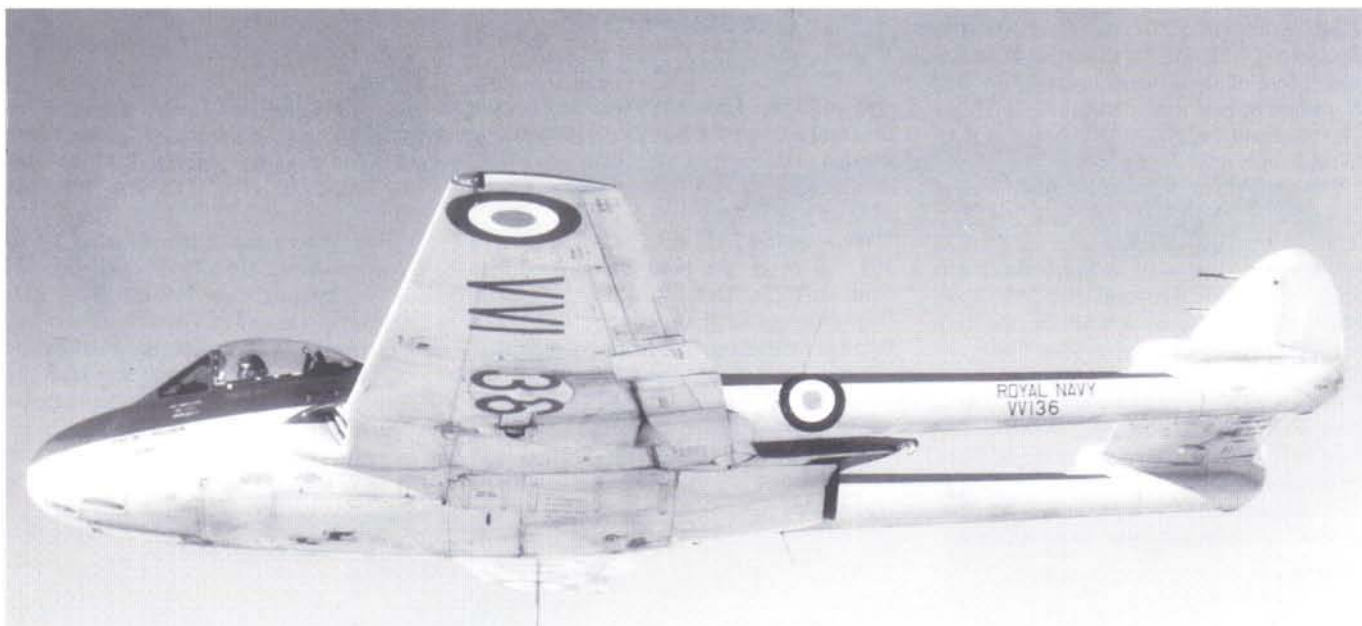
Vampire F.3 VF317 had been delivered to Hatfield on 1 May 1947 for conversion to the first F.20 prototype and was retained for manufacturers trials until January 1948. The first production Sea Vampire F.20, VV136, was delivered to Boscombe Down on 6 October 1948 for handling and deck landing trials. VV136 carried out catapult launching and arrested landings at Boscombe Down followed by brief deck landing assessments. In November 1948 it was used jointly by pilots from Boscombe and naval pilots from 703 Squadron, the Naval Air Warfare Development Unit (NAWDU), and did

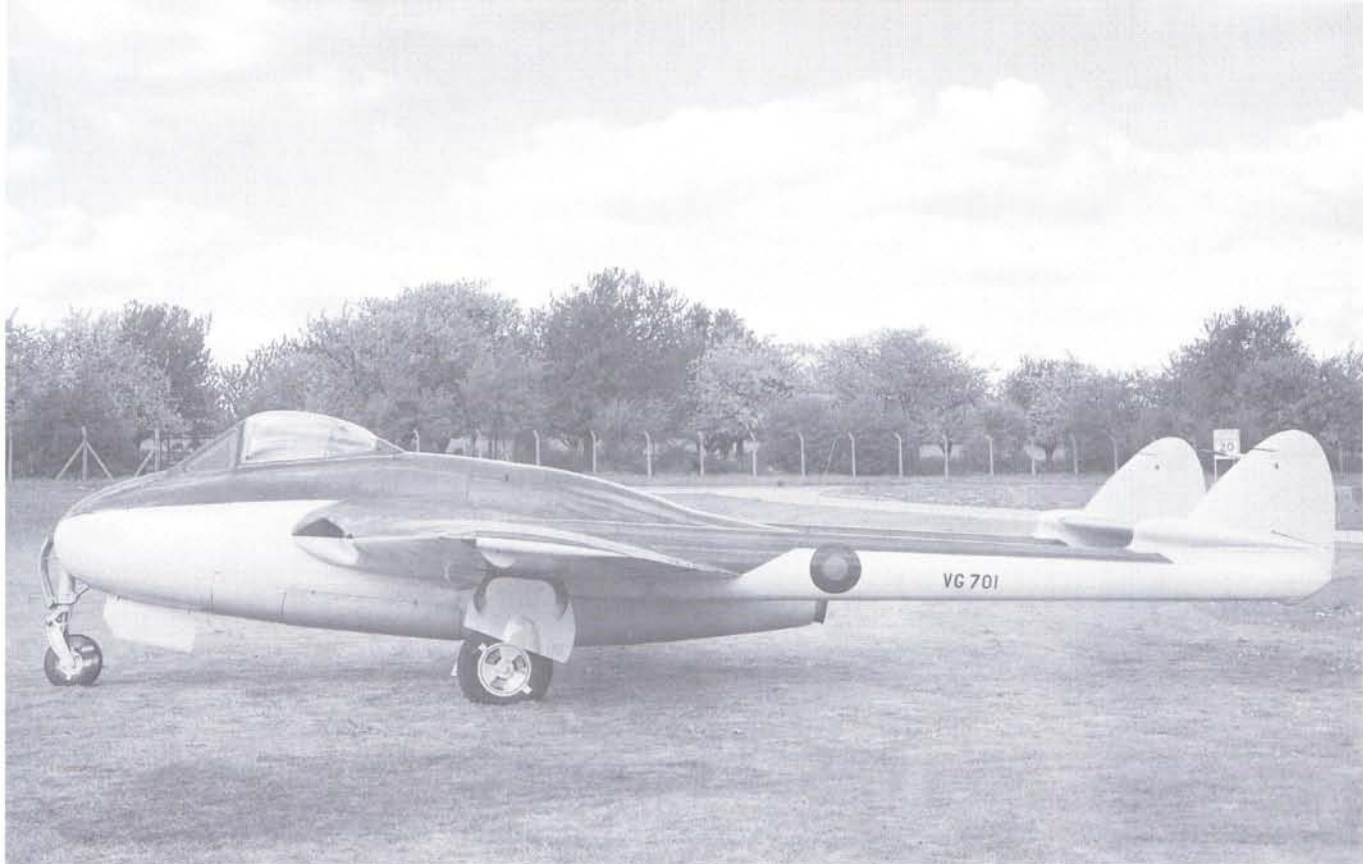
about 60 landings on *HMS Illustrious* between them. One of the recommendations after the trials was for a more powerful version of the Goblin. All 18 F.20 conversions had been completed by July 1949.

No 702 Squadron reformed at Culdrose in April 1949 as the Naval Jet Evaluation and Training Unit (NJETU) with a complement of six Sea Vampire F.20s, VV144 to VV148 and VV150, plus two Meteor T.7s for jet introduction. The squadron was attached to *HMS Implacable* between 21 September and 11 November 1949 and to *HMS Theseus* from 2 May to 30 June 1950.

A most significant event occurred on 19 June when two pilots landed aboard *HMS*

Above and below: Sea Vampire F.20 VV136 at A & AEE Boscombe Down in 1948 for handling trials. It joined the RAF Handling Squadron at Hullavington in January 1949 for preparation of the Pilot's Notes for the F.20. Later it joined 759 Squadron at Culdrose and was coded 180: CW until March 1954. After service with 728 and 771 Squadrons it was sold for scrap in January 1960. (Authors Collection)





Above: After conversion to Sea Vampire F.21 by de Havilland at Hatfield, VG701, seen here in April 1948, joined the RAE at Farnborough for flexible deck landing trials aboard *HMS Warrior* in February 1949. It subsequently flew with 771 Squadron at Ford coded 505:FD, 728 at Hal Far, Malta, back to 771, then 703 and 764 as 179:FD. Sold for scrap, April 1958. Right: Sea Vampire F.20 VV152 which, after conversion by de Havilland, served with 703, 702, 728, 703 and 700 Squadrons between October 1949 and July 1956 when it was withdrawn and stored at Lossiemouth. It was finally scrapped in January 1960. (Author)

Theseus at night without the benefit of deck lighting. Apart from eight F.Mk.1s, six F.Mk.3s and 18 F.20s, the Fleet Air Arm operated 11 FB.Mk.5s allocated for naval use. Most of these were operated by 787 Squadron which was a Naval Air Fighting Development Unit (NAFDU) based at RAF West Raynham.

Other naval units operating early marks of Sea Vampire were 700, 728, 759, 764, 771, 778 and 781 Squadrons. Most of the F.Mk.1s were scrapped or used as instructional airframes by 1953. Between 1952-1955 most of the F.20s, and a few FB.Mk.5s, had been reconditioned, some more than once, by Brooklands Aviation at Sywell.

In January 1952 the first two pre-production Vampire T.11 trainers, WW458 and WW461, were delivered to the Royal Navy for evaluation. They flew with 759 Squadron at Culdrose and 781 Squadron at Lee-on-Solent. As expected there were no signifi-

WW458 was a pre-production Vampire Trainer used for evaluation by the Royal Navy. Seen here with the early type canopy at Culdrose, it went to Boscombe Down for brief trials before joining 759 Squadron as 221. It joined the 781 Squadron Junior Officers Air Course (JOAC) at Lee-on-Solent and was then withdrawn from flying duties but took part in deck handling training aboard *HMS Albion* in May 1954. (AE Hughes)



cant problems. Earlier WW458 had been at Boscombe Down for handling trials where it was found that at the stall with the stick fully back, a wing would drop and a spin develop with very little warning.

Specification T.111 P.2 was issued in April 1952 to cover the production of 53 Sea Vampire T.22s. This was actually an adaptation of the earlier RAF Vampire T.11 specification T.111 P but incorporating modifications for naval use. As the T.22s came off the production line in 1954 they were sent to

Flight Refuelling at Tarrant Rushton for painting and finishing. Second line squadrons using the Vampire T.22 included 700, 700X, 702, 718, 727, 728, 750, and 766.

Sea Venom squadrons forming up at Yeovilton during 1954-1955 were allocated T.22s for training, these including 809, 831, 890, 891, 891X, and 893. 831 Squadron was an Electronic Warfare Unit (EWU) operating from RAF Watton. The Royal Navy Volunteer Reserve (RNVR) squadrons,





Sea Vampire T.22 XA130, seen at Abbotsinch on 20 June 1959, was delivered to Ford on 4 June 1954 for use by the Station Flight as 900:FD. It subsequently went on to serve with 892, 766, Yeovilton Station Vampire Pool, 727 and Abbotsinch Station Flight as 970:AC. (Author)

1831, 1832 and 1836 operated T.22s until 1957 when they were disbanded.

During 1955-56 many of the T.22s went to

Chester for modernisation, which in most cases meant the fitting of ejection seats. Later reconditioning during 1957-58, was carried out at Royal Naval Air Yards (RNAV) such as Fleetlands or Belfast. Of some of the aircraft, XA102 joined the Handling Squadron at RAF Manby for preparation of Pilot's Notes; XA154 was allocated to the Flag Officer Flying Training

(FOFT) at Yeovilton where in 1962 it was painted all black, not to be confused with XG773, which in 1956 had been allocated to FOFT and had been painted dark blue overall with a Rear Admiral's flag painted just below the cockpit; later 'Admiral's Barges' included XA129 (1956) and XG774(1957).

Vampire T.22 XG743 was borrowed by

de Havilland Vampire FB.Mk.9
WR257:A of No. 613 (City of
Manchester) Squadron, RAuxAF,
Ringway, August 1956.



No.613
Squadron
badge



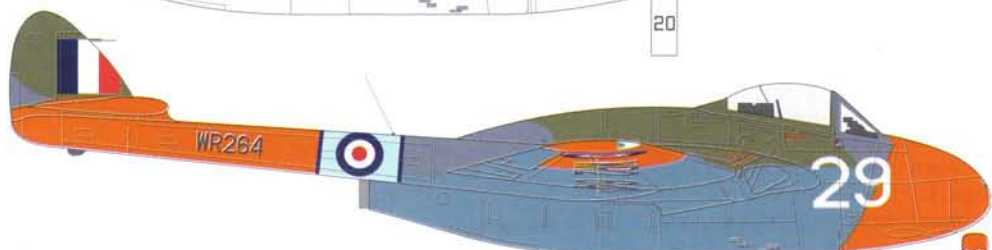
de Havilland Vampire FB.Mk.9
WA303:D of No. 501 (County of
Gloucester) Squadron,
RAuxAF, Filton in 1957.



de Havilland Vampire FB.Mk.9
WA450:20, of No. 3 CAACU,
Exeter in 1959.



de Havilland Vampire FB.Mk.9
W264:29 of the RAF Flying
College, Cranwell in the early
1960s.



GROUND TRAINING AIRFRAMES

Once their operational life was over many Vampire airframes were used for ground training of RAF and RN maintenance people at technical training schools and colleges. Some became gate guardians at the entrance to military establishments; some joined Air Training Corp (ATC) squadrons; others were used for fire service and crash/rescue training. All these redundant airframes were allocated a serial number suffixed by an 'M' and over 150 Vampires were identified as such. Royal Navy training airframes were allocated a similar serial number system but suffixed by an 'A'. The following list of Vampire maintenance airframes is not meant to be definitive. In original serial sequence they were:

RAF

TG277-7004M	TG278-6851M	TG280-6797M
TG281-6355M	TG282-6528M	TG289-7052M
TG291-6613M	TG299-7004M	TG3007053M
TG304-7054M	TG308-7063M	TG309-7046M
TG312-7065M	TG329-7235M	TG336-7055M
TG337-7066M	TG349-7203M	TG371-7056M
TG373-7067M	TG376-7068M	TG3817057M
TG382-7047M	TG385-7069M	TG387-7070M
TG389-7058M	TG420-7071M	TG429-7048M
TG432-7072M	TG437-7049M	TG440-7050M
TG442-7073M	TG445-7059M	TG447-7051M
VF272-7062M	VF274-7045M	VF301-7060M
VF304-7074M	VF306-6860M	VF307-7046M
VF311-7061M	VF316-7076M	VF318-6951M
VF319-7077M	VF321-7083M	VF332-7089M
VF335-7084M	VF336-6869M	VF342-7085M
VF344-7202M	VG697-7086M	VT796-7087M
VT800-7088M	VT801-7078M	VT810-7082M
VT812-7200M	VT821-7079M	VT827-6695M
VT854-7080M	VT856-7199M	VT859-7081M
VT861-7201M	VT871-7079M	VT871-7198M
VV199-7197M	VV205-7075M	VV217-7323M
VV480-7371M	VV542-7577M	VV695-7356M
VX461-7646M	VX953-7357M	VZ117-7132M
VZ183-7588M	VZ216-7176M	VZ265-6950M
VZ304-7630M	VZ335-7372M	VZ851-7409M
WA215-7598M	WA236-7660M	WA275-7370M
WA450-7634M	WG849-7365M	WL498-7373M
WL505-7705M	WL607-7575M	WP244-7419M
WZ419-7420M	WZ423-7557M	WZ458-7728M
WZ494-7727M	WZ502-7880M	WZ544-7652M
WZ549-8118M	WZ550-7902M	WZ557-7889M
WZ559-7736M	WZ575-7368M	WZ576-8174M
XA165-8148M	XD375-7887M	XD377-8203M
XD386-7629M	XD393-7732M	XD430-7450M
XD444-7918M	XD453-7890M	XD457-7423M
XD463-8023M	XD511-7814M	XD515-7998M
XD528-8159M	XD538-7951M	XD542-7604M
XD542-7990M	XD547-7423M	XD596-7939M
XD601-7878M	XD602-7737M	XD613-8122M
XD614-8124M	XD622-8160M	XE822-7585M
XE828-7461M	XE857-8125M	XE887-7824M
XE890-7871M	XE923-7446M	XE926-7472M
XE932-7934M	XE946-7473M	XE950-8175M
XE989-7296M	XE982-7564M	XE993-8161M
XH273-7830M	XH278-7866M	XH278-8595M
XE298-7760M	XH318-7761M	XH358-7763M
XJ774-8123M	XK629-7553M	XK630-7560M

Naval

VF269-A2249	VF315-A2193	VF317-A2320
VV215-A2346	WW458-A2369	WW461-A2370
XA165-8148M		

Other airframes not allocated 'A' numbers were – TG314, TG421, VF268, VV137, VV190.



Top: A number of Sea Vampires became Admiral's Barges, usually for the Flag Officer Flying Training (FOFT). Here T.22 XA160 displays a colour scheme used for such duties. It was sold for scrap at the end of 1965. (APN) Centre and above: Another Admiral's Barge, T.22 XG775, which in these two views shows a slightly different colour demarcation line and style of letters and numbers. It was subsequently presented to Southall Technical College. (APN/MAP)

VAMPIRES FOR EXPORT

The end of World War 2 saw the release of large numbers of piston engined aircraft for possible sale to other countries, some of which had not seen any aviation development for six years and were anxious to rebuild their industries and air arms. British manufacturers such as Gloster and de Havilland also quickly saw a considerable market for their new jet aircraft. Commonwealth and other leading nations were aware that buying into the new technology would provide them with modern up-to-date aircraft for their forces and for those who wanted to make their own, a new industry for the future.

Initial reaction from those fortunate enough to attend the British market place

and see Vampires flying, were impressed and enhanced by the superb performance of John Derry in VV218 at the 1948 SBAC Show at Farnborough.

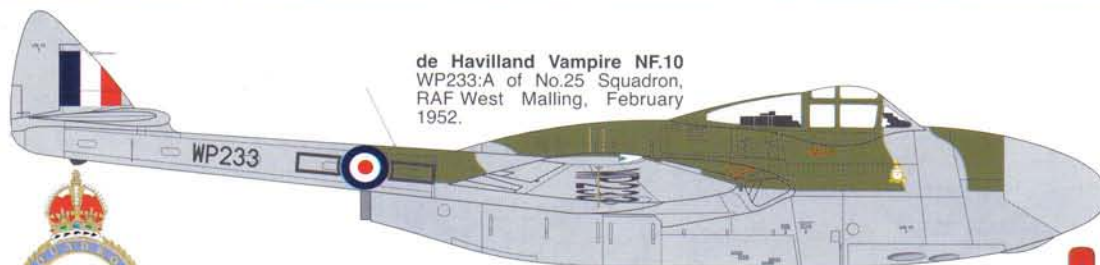
Australia

In 1945 the Royal Australian Air Force (RAAF) decided that their first jet fighter would be the Commonwealth Aircraft Corporation (CAC) built Vampire powered by a Nene engine, which would also be made by CAC under licence.

Three ex-RAF Vampire, F.Mk.1s TG431, F.Mk.II TX807, FB.Mk.5 VV465 (renumbered A78-1 to A78-3 respectively) were acquired for jet experience. First CAC F.30 A79-1 was flown on 29 June 1949 with 56 delivered between September 1949 and July 1952. On 1 March 1952 No.2 OTU formed

Hawker Siddeley to act as chase plane to Buccaneer S.Mk.1 XK526 at their airfield at Holme on Spalding Moor, while the last production Sea Vampire XG777 was eventually sold to Chile in 1972 along with five other surplus T.22s.

The last Sea Vampire in use was XA129, which had been used by the FOFT during 1957 and was last operated by Airwork's Air Directors School at Yeovilton until July 1970 when it was withdrawn and placed in storage for the FAA Museum. With their withdrawal from service surviving T.22s were stored in the open at Brawdy until scrapped.



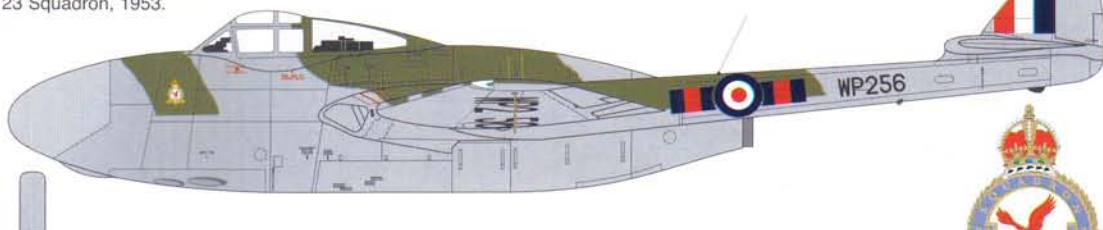
de Havilland Vampire NF.10
WP233:A of No. 25 Squadron,
RAF West Malling, February
1952.



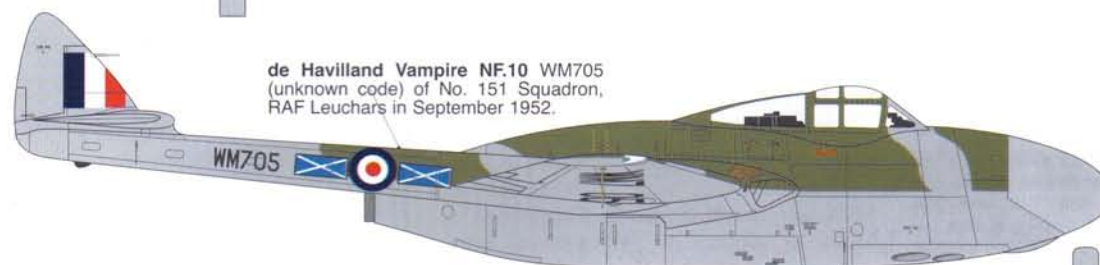
No. 25
Squadron
badge

A

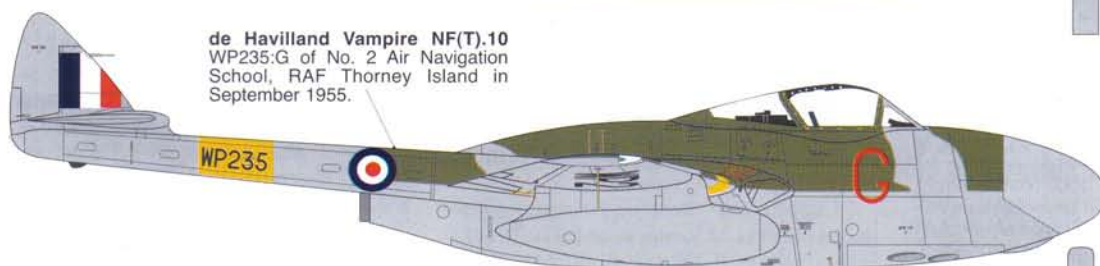
de Havilland Vampire NF.10
WP256 (unknown code) of No.
23 Squadron, 1953.



No. 23
Squadron
badge

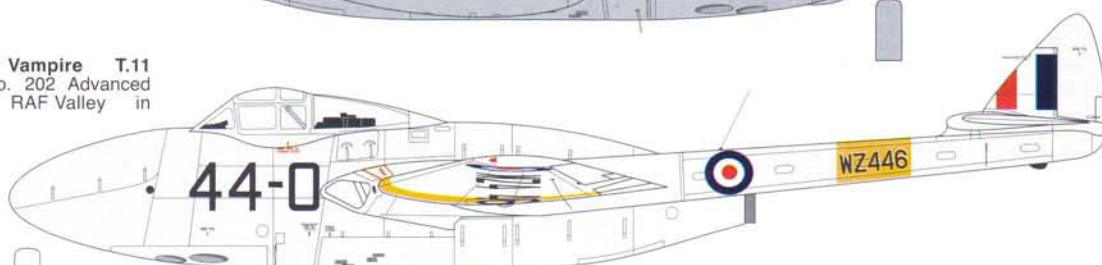


de Havilland Vampire NF.10 WM705
(unknown code) of No. 151 Squadron,
RAF Leuchars in September 1952.



de Havilland Vampire NF(T).10
WP235:G of No. 2 Air Navigation
School, RAF Thorney Island in
September 1955.

de Havilland Vampire T.11
WZ446:44-O of No. 202 Advanced
Flying School, RAF Valley in
September 1952



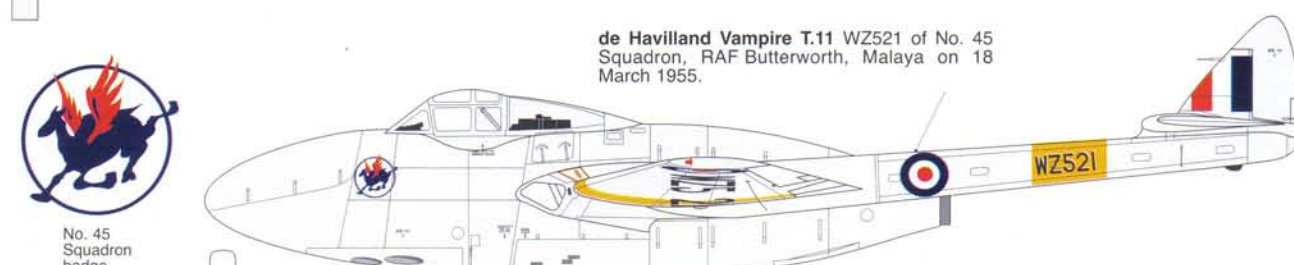
44



de Havilland Vampire T.11 WZ518 of No. 14
Squadron, RAF Oldenberg, Germany in
September 1955. Lightning flash may be yellow.



No. 14
Squadron
badge



de Havilland Vampire T.11 WZ521 of No. 45
Squadron, RAF Butterworth, Malaya on 18
March 1955.



No. 45
Squadron
badge



Top left: This Sea Vampire T.22 XA158 is in the markings of 727 Squadron at Brawdy. It had previously served with 809, 890, 718, and 736 Squadrons before arriving at Brawdy. It was initially coded 908:BY in 1956, then 561:BY in 1958 and finally 558:BY in January 1959. (MAP) Top right: Although no markings are discernable this is T.22 XA165:8148M at 5 MU Kemble in 1971 but on the strength of 1414 Squadron ATC at Crowborough. It survived until 1977. (MAP) Above left: XA110 after it joined 750 Squadron at Hal Far as 664:HF, being renumbered 599/HF, as shown, in April 1963. It returned to the UK in 1965 to be sold for scrap. (APN) Above right: No 764 Squadron accepted T.22 XG768 on 2 February 1955. It suffered an undercarriage collapse on 10 November 1955 and was repaired on site by Marshalls of Cambridge. It returned to 764 and in August 1957 was embarked in *HMS Ocean* to take part in the Helsinki Trade Fair. It is seen here in use by the Station Flight, Lissiemouth as 981/LM during 1962. (APN)

Nos. 75 and 76 Squadrons formed in May 1952 as 78 Wing based at Williamtown, NSW. In July of that year the Wing moved to Malta in support of home-based units involved in the Middle East crisis. The RAF provided Vampire FB.Mk.9s, identified as WP993, 997, WR109, 110, 116, 118, 133, 136, 138, 140, 147, 148, 151, 173, 174, 185, 187 and WR189, plus T.11 WZ495, on loan so that 78 Wing did not have to commit their new aircraft. The Wing returned to Australia in 1955.

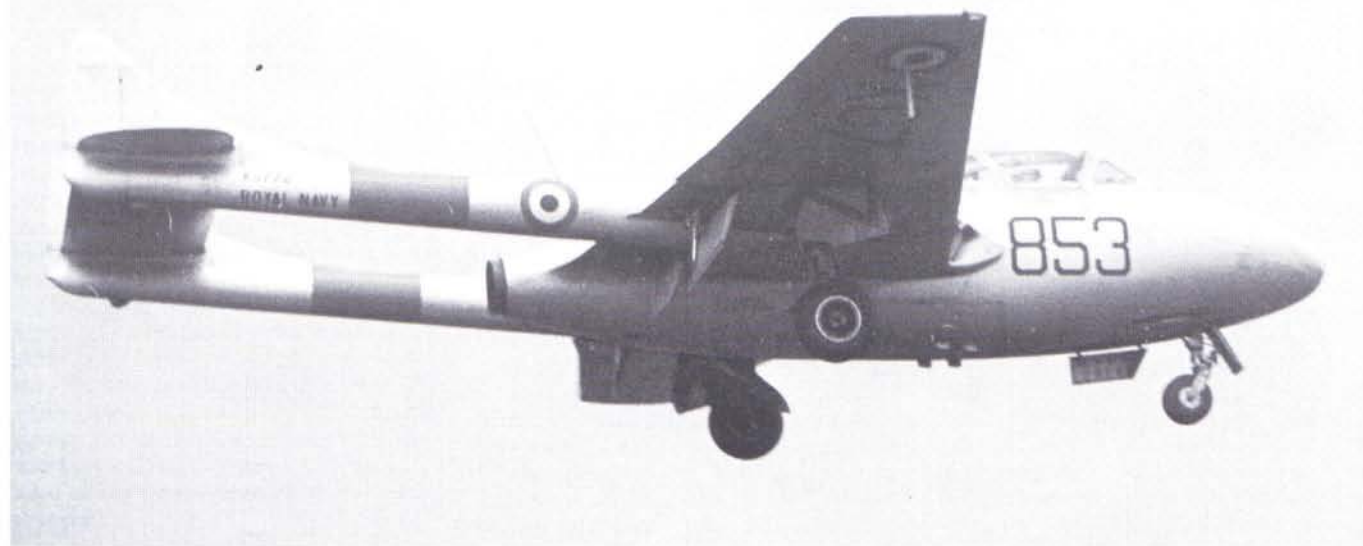
Clipped and strengthened wings introduced the next 23 Vampires as F.31s, with 28 others built as F.30s, but modified to F.31s during 1956. In October 1951 two F.30s, A79-227 and 737 were used as trials aircraft for a projected FB.32 with enlarged intakes and ejection seat, but the project was cancelled after 18 months. During 1955-56 some 54 F.31s were converted to target-tugs with yellow and black bands on both upper and lower surfaces.

In 1961 all early Vampires were withdrawn from use with many scrapped, some became ground instructional airframes and a few were sold privately.

In 1951 the RAAF ordered 36 Vampire T.33 trainers, the Australian equivalent of the RAF's T.11. The last aircraft, A79-836, was modified to incorporate ejection seats, clear-view canopy, increased fuel capacity and dorsal fairings. It was renumbered A79-600 as the prototype for 68 T.35s ordered in 1955. Retrospectively modified T.33s became T.35As. After 18 years service the final RAAF Vampire sortie was made on 18 September 1970. During that time some 31 Vampires had been written off in accidents. Fourteen surplus Vampire trainers were sold to Westair International in the USA.

The Royal Australian Navy (RAN) had Sea Vampire T.22 XG772 coded 853 when in use with the Southern Air Division of the RNVR based at RAF Benson in 1956. After service with numerous units it was sold to Chile in late 1972. (MAP)

up at Williamtown to provide training on Vampires. It was redesignated No 2 OCU between September 1958 and January 1961, when it was absorbed as a training unit within 81 Wing.



VAMPIRE SQUADRONS, BASES, REPRESENTATIVE SERIALS AND CODES

Squadron	Base	Dates	Mark	Example
1	Tangmere	4.51- 7.58	T.11	XD550
3	Wildenrath	4.48- 9.49	F.1	VF279
	2 TAF	5.49- 7.53	FB.5	XA116 F
		8.54- 3.56	T.11	
4	Jever	5.50- 3.54	FB.5	WA120 UP-A
	2 TAF	2.53- 5.54	FB.9	WL493
		9.54- 5.59	T.11	WZ447
5	Wunstorf	2.49- 8.51	F.1	VF273 7B-N
	2 TAF	3.52- 7.54	FB.5	WG841
		6.52- 9.54	FB.9	WR146
		8.53-10.59	T.11	WZ447
6	Deversoir	9.49- 4.52	FB.5	VV555 Z
	MEAF bases	2.52- 5.54	FB.9	WG924
		8.53- 9.57	T.11	WZ591
8	Khormaksar	12.52-12.55	FB.9	WL559 P
	MEAF	9.53- 1.60	T.11	XE976
11	Wunsdorf	8.50- 7.54	FB.5	VV634 EX-B
	2 TAF	3.54- 8.54	FB.9	WR177
		10.53-12.57	T.11	WZ447
14	Fassberg	3.51- 6.54	FB.5	WA234
	2 TAF	9.53- 5.59	FB.9	WL493
16	Celle	12.48- 6.54	FB.5	VV656 EG-Z
	2 TAF	9.53- 6.57	T.11	WZ515
20	Valley	2.49- 2.51	F.1	TG447 TH-M
		11.49-10.51	F.3	VT797
	Oldenburg	2.53- 1.54	FB.5	VZ229 L-N
	2 TAF	6.52- 7.54	FB.9	WR134 L-N
		7.54- 5.59	T.11	WZ476
23	Coltishall	9.51- 8.54	NF.10	WP253
		5.51- 2.52	FB.5	VV685
		5.54- 6.58	T.11	WZ468
25	West Malling	7.51- 3.54	NF.10	WP234 B
		5.51- 7.51	F.3	VT796
		1.51-10.51	FB.5	VV678
		6.53- 3.54	T.11	WZ581
26	Oldenburg	4.49- 2.54	FB.5	VV451 XC-F
		6.52- 6.54	FB.9	WR143
		9.54- 7.59	T.11	WZ498
28	Sek Kong	1.51- 2.52	FB.5	WA289
	Hong Kong	2.52- 8.56	FB.9	WL500
		12.53- 6.62	T.11	XH264
32	Shaibah	7.48- 6.50	F.3	VV196 GZ-F
	MEAF	3.50- 8.52	FB.5	VZ319 N
		4.52- 1.55	FB.9	WR131 X
		8.53- 1.57	T.11	XE985
33	Leeming	9.57- 11.62	T.11	WZ567
34	Tangmere	8.54- 1.58	T.11	WZ424
41	Dalcross	2.51- 4.58	T.11	WZ589
45/33	Butterworth	5.55- 5.56	FB.9	WL514
	Malaya	1.54-11.57	T.11	WZ610
54	Odiham	10.46-10.48	F.1	TG287 HF-L
		4.48- 9.50	F.3	VT800
		10.49- 6.52	FB.5	VV229
		11.54- 1.59	T.11	XE955
56	Bentwaters	12.50-10.58	T.11	WZ515
60	Tengah	12.50- 5.52	FB.5	WA282
	Malaya	2.52- 8.55	FB.9	WL555 E
		12.53-11.59	T.11	WZ556 Y
63	Waterbeach	4.51-10.58	T.11	WZ421 X
66	Acklington	4.51- 9.60	T.11	WZ420
67	Wildenrath	9.50- 9.53	FB.5	WG805
		6.54- 5.57	T.11	WZ519
71	Wildenrath	9.50-11.53	FB.5	WA163 L-G
		6.54- 5.57	T.11	WZ585
72	North Weald	2.47-10.48	F.1	TG293 FG-A
		6.48- 2.50	F.3	VT821 FG-A
		10.49- 9.52	FB.5	VZ305 N
73	Habbaniya	7.48- 6.50	F.3	VT809 Z
		4.50- 7.52	FB.5	WR155
		11.51-10.54	FB.9	WR153 H
		1.54- 6.57	T.11	XE976
79	Gutersloh	.56- .61	T.11	WZ498
80	Laarbruch	.55- .60	T.11	WZ509
92	Acklington	4.51- .60	T.11	XE934
93	Celle	10.50- 5.54	FB.5	WA191 S-T
		11.53- 5.54	FB.9	WR144
		7.54- 4.60	T.11	
94	Celle	10.50- 6.54	FB.5	WG842
		9.53- 9.57	T.11	WZ559
98	Fassberg	3.51-11.53	FB.5	WE834 L-L
		11.53- 7.57	T.11	WZ514
111	North Weald	.53- .58	T.11	XD550
112	Fassberg	4.51- 4.54	FB.5	WA235 A-L
		6.55- 3.57	T.11	
118	Fassberg	4.51- 6.54	FB.5	VX474 A-K
		10.53- 8.57	T.11	WZ517
125	Stradishall	3.55- 5.57	T.11	XD602
130	Odiham	10.46- 2.47	F.1	VF306 AP-V
	Bruggen	8.53- 4.54	FB.5	VX464
		8.53- 5.57	T.11	XD441
		4.51- 2.58	T.11	XD444
141	Coltishall	2.59- 4.59	T.11	XE991
142	Eastleigh, Kenya	3.52- 9.54	FB.5	WA106 B-V
145	Celle	12.53- 4.56	T.11	WZ559
		2.52-10.53	NF.10	WM675 R
151	Leuchars	12.51- 7.53	FB.5	VZ303
		6.55-10.57	T.11	XE925

Continued on next page

ordered all-weather Sea Venoms and to provide dual training bought five T.33s from the RAAF production line. These were known as Vampire T.34s using serials A79-837 to 841. Deliveries began in 1954 and in 1958 were all modified to T.35 standard and designated T.34A. Four ex-RN T.22s, XA101, XA167, XG766 and XG770 were acquired from the UK, the latter in 1957 and the rest in 1959. All RAN Vampires retired with the last flight of A79-842 on 5 October 1970.

Austria

Austria reconstituted its air force in 1955 and the following year accepted an offer from the Swedish Government of 23 surplus Vampire single-seat fighters. Overhauled by Svensk Flygtjänst AB they were acquired via a Belgian aircraft broker that same year for Austria. Only three were delivered, ex-Swedish Air Force 28026, 28017 and 28065 became OE-VAB, OE-VAC and OE-VAE. These latter registrations were usually only allocated to aircraft undergoing experimental or evaluation flying. They had been disposed of by 1960. One Vampire T.11 and two T.55s were ordered from de Havilland and delivered in March 1957. Five further trainers were ordered which included the last two T.55s built at Chester. Three ex-RAF T.11s, WZ618, XH320 and XK634, were refurbished at Hatfield in 1964 and delivered to Austria. All surviving Vampires were withdrawn from use in April 1972.

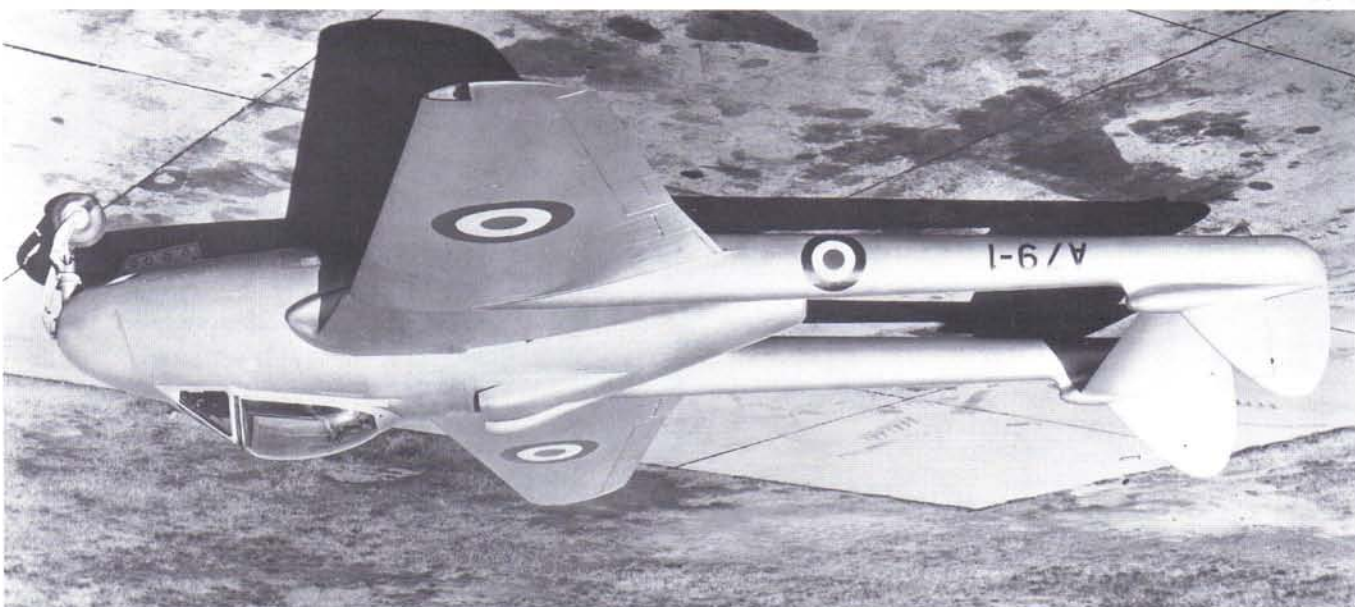
Burma

Eight Vampire T.55s were ordered for the Burmese Air Force in 1954. Built at Chester the serials were UB501 to UB508. The first four were flown from Hatfield to Mingaladon on 7 December 1954 and the second batch during February 1955. During the civil war in Burma Vampires were known to have carried out strafing attacks, from which some of them did not return.

Canada

The Canadian Government ordered 150 Vampire F.Mk.3 fighters from de Havilland in 1946 following the change of an earlier plan, whereby they wanted to build their own F.Mk.1s under licence. In view of the numbers ordered it was planned that they would be built at Preston, shipped to de Havilland's Canadian factory at Downsview and delivered from there after re-assembly.

In the event the order was reduced to 85; drawn from RAF production they were allocated serials VP674 to VP786 corresponding to RCAF serials 17001 to 17085, although VP732/17043 crashed during an aborted take-off at Samlesbury following engine failure and was replaced by VP787/17086. Shipments from Preston began in September 1947 and were completed in February 1948. Two front line squadrons flew the Vampire F.Mk.3, Nos. 410 and 421, the former having it's own formation display team, the 'Blue Devils' which they operated between 1949 and 1951. No. 421 Squadron was 'rotated' to the UK in October 1950 to carry out operational training alongside the RAF. Based at Odiham between 9 January and 2 December 1951, 421 'borrowed' 18 RAF Vampire F.Mk.3s, VZ240, 261, 262, 264,



Ceylon (now Sri Lanka)
Five Vampire T.55s, CF-501 to CF-505, were ordered for the Royal Ceylon Air Force in 1954. Built at Chester, they were delivered by sea and then to Katunayake air base. Believed to be too advanced for his embryonic air force the Commander had the Vampires returned unopened. At Chester three of the airframes, CF-501 to CF-503 became VT-4, VT-3 and VT-2 respectively for Finland. It is the first Australian-built Vampire F.30 A79-1 which Brian Walker, the de Havilland test pilot flew on 29 June 1949. Eighty F.30s were ordered initially, all powered by the CAC-built Nene 2-VH. (Rolls Royce)

The Hollywood stunt pilot, Paul Mantz was known to have operated two, one of which was 17071/N6883D, and Airplanes Inc. of Wyoming had 17036/N6884D still in use in 1967. However, 15 were subsequently sold to the Mexican Air Force in 1950 so they weren't a total loss.

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The Fliteway registered Vampires were 17002/N6885D, 17007/N6880D, 17016/N6870D, 17018/N6881D, 17017/N6873D, 17019/N6874D, 17030/N6861D, 17039/N6871D, 17044/N6866D, 17047/N6872D, 17065/N6862D, 17068/N6860D, 17069/N6877D, 17070/N6870D, 17071/N6883D, 17072/N6878D, 17078/N6867D, 17085/N6868D, and 17031/N41J, plus the four spare aircraft, 17006, 17021, 17055 and 17062.

Continued on next page

Squadron	Base	Dates	Mark	Example
185	Hal Far	9.51 - 5.53	FB.5	WA377
208	Luga	5.52 - 5.53	FB.9	WR128
213	Eastleigh, Kenya	1.59-4.60	T.11	WZ424
219	Driffield	9.53-10.54	FB.9	VX983
234	Oldenburg	9.52 - 3.54	FB.5	WR247 W-Q
245	Stradishall	7.54 - 3.56	FB.9	VR230 V-F
247	Odham	5.1 - 7.57	F.1	XD604
249	Deversoir	1.50-6.52	FB.5	WZ552
253	Waterbeach	11.54-10.57	T.11	WR120 U
257	Watisham	4.55-9.57	T.11	WZ418
263	Fassberg	7.52-6.53	FB.5	XE995
266	Wassberg	9.56	T.11	WA102 G
595	Pembrey	10.46-9.48	F.1	WR123
631	Llanbedr	9.48-2.49	F.1	WR102
1689	Ferry Flight	11.47-1.49	F.1	XR76 O
Ferry FU	Benson	5.49 - 8.51	FB.5	VZ192 H
1 Overseas	FU Chivenor	7.50 - 5.51	FB.5	VF388 ZY-W
145	Sqd	5.51 - 11.51	T.11	TG291 ZY-C
167	Sqd	5.51 - 11.51	T.11	WG949
500	West Malling	1.49 - 6.51	F.1	WG949
501	Filton	3.51 - 3.57	FB.5	WG949
502	Aldergrove	2.55 - 3.57	FB.9	WR260
600	Biggin Hill	10.49-4.50	F.1	WA294 V9-C
601	North Weald	11.55-3.57	FB.9	WR179 X
602	Abbotsinch	11.55-3.57	T.11	XR870 R
603	Turnhouse	12.56-2.57	T.11	TG308
604	North Weald	11.49-10.52	F.1	VF338 HT-E
605	Honiley	3.51 - 3.57	FB.5	VR812
607	Ouston	6.51 - 2.57	FB.5	WA553 LO-A
608	Thornaby	4.56 - 3.57	FB.9	WR232
612	Church Fenton	11.50 - 2.51	FB.5	XD550
	Dyce	5.51 - 3.57	FB.5	WR266

Vampire squadrons serials and bases. Continued from previous page



One way to try and improve performance of the Australian F.30 was to move the 'elephant ears' under the fuselage and many aircraft were so converted, including the first F.30 built A79-1, seen here in 1982. (MAP)

not clear what exactly happened to the other two. One source said that they ended up as spares but the favourite is that they went to Burma to cover losses in the civil war.

Chile

Five Vampire T.55s were ordered for the Chilean Air Force on 22 October 1953. The first three were flown to Hatfield and then shipped to Chile during January 1954. On arrival at El Cerrillos Airport, Santiago, the Vampires were reassembled and test flown between April and June, by which time the final pair had arrived.

Numbered J-01 to J-05, but later renumbered J301 to J305, these were the first jets in the Chilean Air Force. As recounted earlier, de Havilland demonstrator Vampire T.55 G-AOXH was flown on a 30,000 mile sales tour around Argentina, Chile, Peru and Uruguay by test pilot George Errington. Following the tour, G-AOXH was handed over to the Chilean Air Force as a replacement for J-04 which had been written off in a crash on 7 September 1954.

By 1962 most of the Vampires had been grounded, but the following year they were all refurbished and put back into use as ground attack fighters. They lasted until 1971 when structural life restrictions grounded all but J301.

With an order for Hunters, the Chilean Air Force still had a requirement for a good basic jet trainer and purchased four ex-RAF Vampire T.11s, WZ512, XD614, XE857 and XJ774, plus six ex-FAA Sea Vampire T.22s, XA107, XA128, XA166, XG769, XG772 and XG777. They were shipped to Chile in December 1972 and given the serials, J302 to J311, but not in sequence with the British serials above. By June 1977 some of the Vampires had been withdrawn from service and the rest followed on 31 December 1980.

Dominican Republic

The Aviacion Militair Dominicana instructed Swedish aircraft broker, Henry Wallenberg, to buy 25 ex-Swedish Air Force

Vampire units, bases and serials. Continued from previous page

Squadron	Base	Dates	Type	Example
613	Ringway	9.49 - 6.50	F.1	TG336 RAT-D/Q3-D
		9.52 - 2.53	F.3	VF329 Q3-G
		2.51 - 3.57	FB.5	VV602 Q3-B
		6.54 - 3.57	FB.9	WR257 A
		8.56 - 3.57	T.11	XE871
614	Llandow	7.50 - 9.52	F.3	VT860 T
		9.51 - 3.57	FB.5	WE837 D
		12.54 - 3.57	FB.9	WR253 R

Flying Training Schools and Units

1 FTS	Linton On Ouse	1.58- 5.59	FB.5	VZ228
		1.58- 6.59	FB.9	WX214
		1.58- 1.66	T.11	XK633 57
3 FTS	Leeming	11.66- 1.68	T.11	WZ512 60
4 FTS	Worksop	10.54- 6.58	FB.5	VV620
	Valley	9.56- 6.58	FB.9	WX234
		10.54- 9.63	T.11	WZ612
5 FTS	Oakington	6.54- 10.59	FB.5	VV550
		9.56- 6.59	FB.9	WX230
		6.54- 9.63	T.11	XD379 57
7 FTS	Valley	6.54-10.59	FB.5	VV601
	Church Fenton	1.57-10.59	FB.9	WP993
		6.54- 8.60	T.11	XE887
8 FTS	Swinderby	7.55- 6.59	FB.5	VV675
		10.55- 4.59	FB.9	WX203
		7.55- 3.64	T.11	WZ578 37
9 FTS	Merryfield	7.54- 2.55	FB.5	VV669
		7.54- 2.55	T.11	WZ501
10 FTS	Merryfield	6.54- 7.54	FB.5	VV690
		6.54- 7.54	T.11	XD530
11 FTS	Swinderby	6.55	T.11	XD612
202 AFS	Valley	5.51- 7.53	F.1	TG303
		3.51- 6.54	FB.5	WA194 N-18
		9.52- 6.54	T.11	WZ426 53-0
		5.49- 9.51	F.1	TG277
203 AFS	Driffield	5.49- 9.51	F.1	TG385
	Valley	7.49- 8.53	FB.5	VX979 FMI-K
		1.53- 9.53	FB.9	WX202 D
			T.11	WZ574
206 AFS	Oakington	2.54- 6.54	FB.5	WA301
		12.53- 6.54	T.11	XD382
208 AFS	Merryfield	12.51-11.52	F.1	TG381
		8.52- 6.54	FB.5	WA115 75
		10.52- 6.54	FB.9	WR213
		1.53- 6.54	T.11	WZ566 31
210 AFS	Tarrant	10.52- 5.54	FB.5	VV477 V
	Rushton			
226 OCU	Bentwaters	9.46-12.49	F.1	VF312 BB-A
	Driffield	9.49- 2.51	FB.5	VV636 KR-A
	Stradishall	9.49-12.50	FB.9	
		5.53- 6.55	T.11	XE923 UU-T
229 OCU	Chivenor	12.50- 7.57	FB.5	VV630 ES-A
		1.53-11.58	T.11	WZ568 ES-29
233 OCU	Pembrey	10.52- 6.57	FB.5	WA112 M
		1.55- 6.57	FB.9	WL578
		2.53- 7.57	T.11	WZ472 RS-30

A & AEE

Boscombe Down trials aircraft included F.1s TG280, 283, 284, 288, 305, 330, TG338, 381, 428, 445, 446, 447, VF306, 314, F.3 VF317, 343, VT818, VV190, VV200, FB.5 VV215-218, 220, 475, 568, 612, 675, VZ116, 216, 324, 808, WA201, T.11 WZ414, 417, 475.

CFS	Little Rissington	7.47- 6.48	F.1	TG295
		2.48-12.49	F.3	VT856 FDJ-L
		1.52- 9.55	FB.5	VV559 I-N
		2.53- 6.63	T.11	XD527 I-Q
102 RFS	N Luffenham	4.51-11.51	F.1	TG427
		4.51-12.51	FB.5	WA413 M-28
103 RFS	Full Sutton	4.51-11.51	F.1	TG435
		4.51-12.51	FB.5	WA101
CGS/FWS	Leconfield	7.49-12.54	FB.5	WA404
		9.52- 4.58	T.11	XD529 G

Vampire, units serials and bases. Continued from previous page

Unit	Base	Dates	Type	Example
CFE	West Raynham	3.46-11.48	F.1	TG346
		11.48- 6.53	FB.5	WG833
		4.58- 1.59	T.11	
APS	Acklington	8.49- 3.50	F.1	TG380
		12.49- 4.50	F.3	VT797
		4.50- 8.52	FB.5	VZ269
		9.52- 8.56	T.11	XE934
APS	Sylt	6.49- 9.54	FB.5	WE833
		11.52-12.61	T.11	XE956
APS	Habbaniya	8.56- 3.57	T.11	
APC MEAF	Nicosia	10.56-12.56	T.11	XE889
27 APC	Butterworth	3.55- 5.56	FB.9	WL564
		3.55- 5.56	T.11	WZ610
FEES/FETS	Seletar	5.52- 3.55	FB.9	WR176
	Butterworth	11.53- 3.55	T.11	WZ587
ETPS	Farnborough	4.46- 7.51	F.1	TG338
		2.49- 9.56	FB.5	VV672
		12.52- 9.63	T.11	WZ475 17
CNCS/CATCS	Shawbury	5.54- 9.59	NF.10	
		3.57-11.70	T.11	WZ552 S
RAF College	Cranwell	5.48- 6.49	F.1	TG295 FAG-G
		9.55-10.59	FB.9	WR255
		10.54- 3.62	T.11	XD382 38
RAE, Farnborough test aircraft included F.1 TG283, 285, 290, 299, 328 TG338, 386, 426, F.3 VT802, 806, 818, 858, FB.5s VV603, 638, VZ835.				
2 CAACU	Little Snoring	4.54-12.54	FB.5	VV687
		4.58-11.58	FB.9	WL573
		4.58-12.58	T.11	WZ584
3/4 CAACU	Exeter	4.54- 8.60	FB.5	WA183
		4.58-12.71	T.11	XD428 66
4 CAACU	Llandow	9.51- 7.54	F.3	VT815
5 CAACU	Llanbedr	9.51- 9.54	F.3	VT797
		6.54-10.56	FB.5	WA192

Units operating Vampires for training/communications

Unit	Type	Serials
Abu Sueir Station Flight	FB.5	VZ316
Acklington SF	T.11	XE869 WH-F
Aden Comm Flt, Khormaksar	FB.9	WR135
Aldergrove SF	FB.9	WX205
AFDU	FB.5	VV590
ATDU	FB.5	VX985
Ahlhorn WL	T.11	WZ498
AMSDU	FB.5	VT855
Allied Air Forces Central Europe Comm Sqd	T.11	XE919
Biggin Hill SF	T.11	XH329
All-Weather OCU	T.11	WZ588
British Air Forces of Occupation Instr Tr Flt	T.11	WZ498
Bruggen WL	FB.5/T.11	VZ847/WZ506
Celle WL	FB.5/T.11	WA195/WZ548
Central Gunnery School, Leconfield	FB.5/T.11	WA101/WZ422
Central Navigation School	FB.5	VV630
Central Signals Establishment	NF.10	WM727
Coastal Command Gunnery School	FB.5	WA186 O
Coleme SF	FB.5	VZ870
Coltishall SF	T.11	WZ615
Day Fighter Combat School	T.11	WZ547
Day Fighter Leader School	FB.5	WE840
Deversoir SF	FB.5/FB.9	VZ107/WG927
Driffild SF	T.11	WZ567
Duxford SF	T.11	WZ461
Empire Central Flying School, Hullavington	F.1	
Far East Comm Sqd	FB.9/T.11	WG872/XD615
Fassberg WL	FB.5/T.11	WA340/WZ520
Fighter Command Instrument Rating Flt	T.11	WZ582 B
Fighter Command Instrument Training Sqd	T.11	XE879 E
Filton SF	FB.5	WA316
Fighter Command Com. Sqd., Bovingdon	F.1/FB.5	WA452
Geilenkirchen WL	FB.5/T.11	VV696/WZ426
Gutersloh WL	FB.5/T.11	WG834/WZ498
Handling Squadron, Manby	FB.5	WG842
	FB.9	WX203
	T.11	XD507
	F.20	VV136
Habbaniya SF	FB.5	VZ327
Honiley SF	FB.5	VZ180
HQ MEAF Comm Flt	FB.5	VZ316
Iraq Comm Flt	FB.9/T.11	WR196/XE889
Inst. Of Aviation Medicine Farnborough	FB.5	VV463
Instrument Training Flt RAF Germany	T.11	WZ498
Jever WL	FB.5/T.11	VZ867/WZ501
Kinloss SF	FB.5	VZ313
Linton on Ouse SF	T.11	WZ571
Malta Comm Flt	FB.9	WR239
Marshalls of Cambridge	T.11	WZ549
Metropolitan Comm Sqd	T.11	
Middleton St George SF	T.11	
NGTE Bitteswell/Farnborough	F.1	XE934
North Weald SF	FB.5/T.11	TG421
Odiham SF	F.3/FB.5/T.11	VZ841/XH313
Oldenburg WL	FB.5/T.11	VF329/WG844 T/WZ571
Ouston SF	FB.5	VZ229/WZ501
RAF Flying College, Manby	FB.5	WA419
RR Sqd	FB.5	VZ181 FGC-Q
Radar Interception Development Sqd	FB.5/T.11	VV217/XD627
School of Fighter Control	T.11	WZ582 B
SCU Wildenrath	T.11	XD588
School of Land/Air Warfare, Old Sarum	FB.5/T.11	
St Eval SF	FB.5	WA439
Stradishall SF	T.11	VZ149
		XH307

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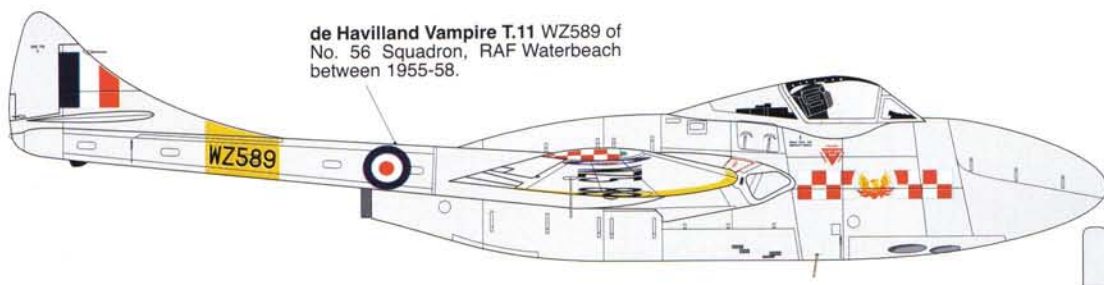
The RAAF used a simple coding system, using the the last two digits of the serial number. Anti-collision markings were applied on the upper nose section and dorsal fins. A79-644 was photographed in 1968. (MAP)

been withdrawn from service with the Royal Swedish Air Force in 1953. India, Spain and Nicaragua had shown some interest but decided not to buy and the aircraft were placed in storage. The 25 ex-Swedish Vampires 28013, 28021, 28022, 28025, 28027, 28028, 28030, 28032, 28036, 28038, 28040, 28041, 28042, 28044, 28046, 28047, 28049, 28055, 28057, 28058, 28059, 28061, 28062 and 28067 were shipped to Dominica at the end of 1955. They were renumbered 2701 – 2725 but it has not been possible to get a tie up between the Swedish and Dominican serial numbers.

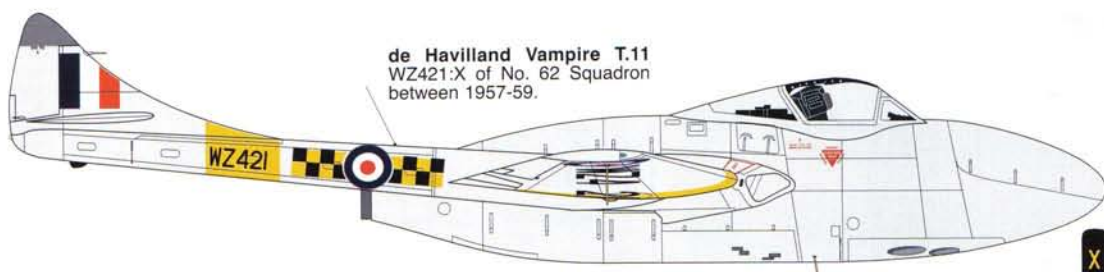
Although the J-28A/FMk.1 was essentially a fighter, the AMD modified them to fighter-bomber standard by installing their own electric bomb release gear. Looking for more J-28A/FMk.1s the AMD approached Henry Wallenberg but by then all the J-28As had been disposed of. However, 17 surplus ex-Royal Swedish Air Force J-28Bs/FB.50s were bought and shipped to Dominica early in 1957, the aircraft being 28152, 28174, 28176, 28183, 28202, 28227, 28279, 28332, 28346, 28347, 28365, 28370, 28374, 28379,



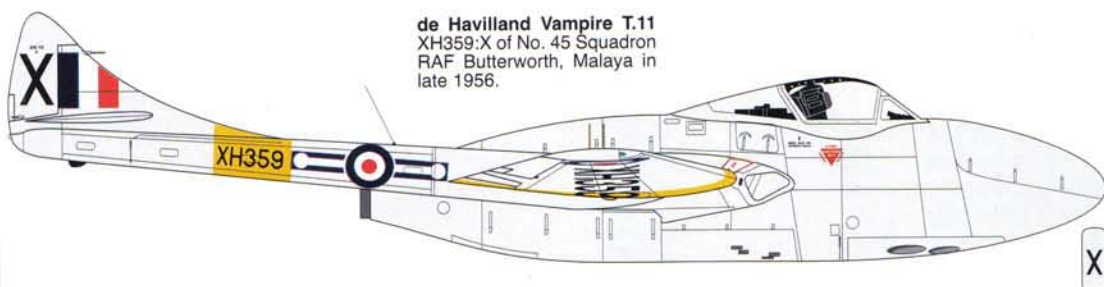
de Havilland Vampire T.11 WZ589 of
No. 56 Squadron, RAF Waterbeach
between 1955-58.



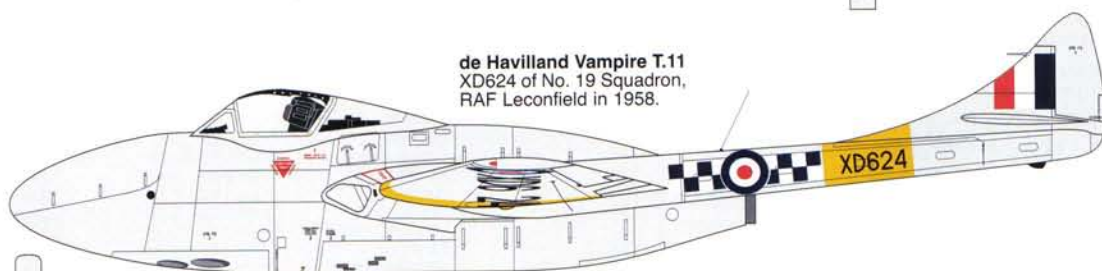
de Havilland Vampire T.11
WZ421:X of No. 62 Squadron
between 1957-59.



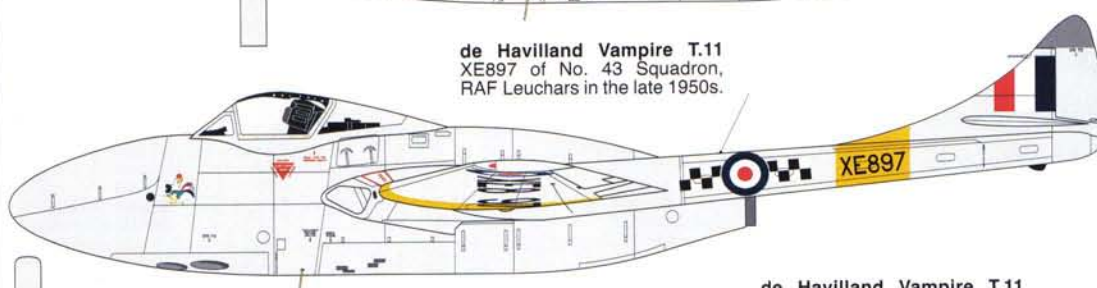
de Havilland Vampire T.11
XH359:X of No. 45 Squadron
RAF Butterworth, Malaya in
late 1956.



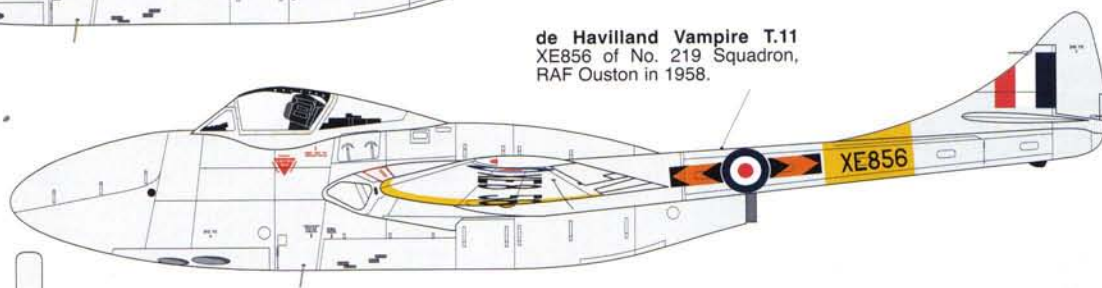
de Havilland Vampire T.11
XD624 of No. 19 Squadron,
RAF Leconfield in 1958.



de Havilland Vampire T.11
XE897 of No. 43 Squadron,
RAF Leuchars in the late 1950s.



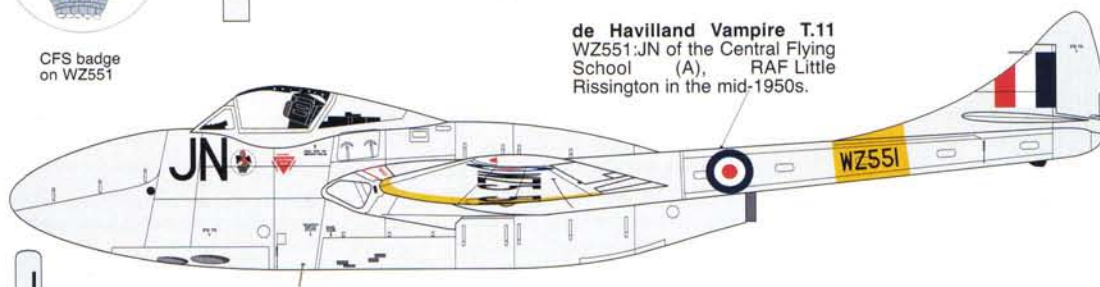
de Havilland Vampire T.11
XE856 of No. 219 Squadron,
RAF Ouston in 1958.

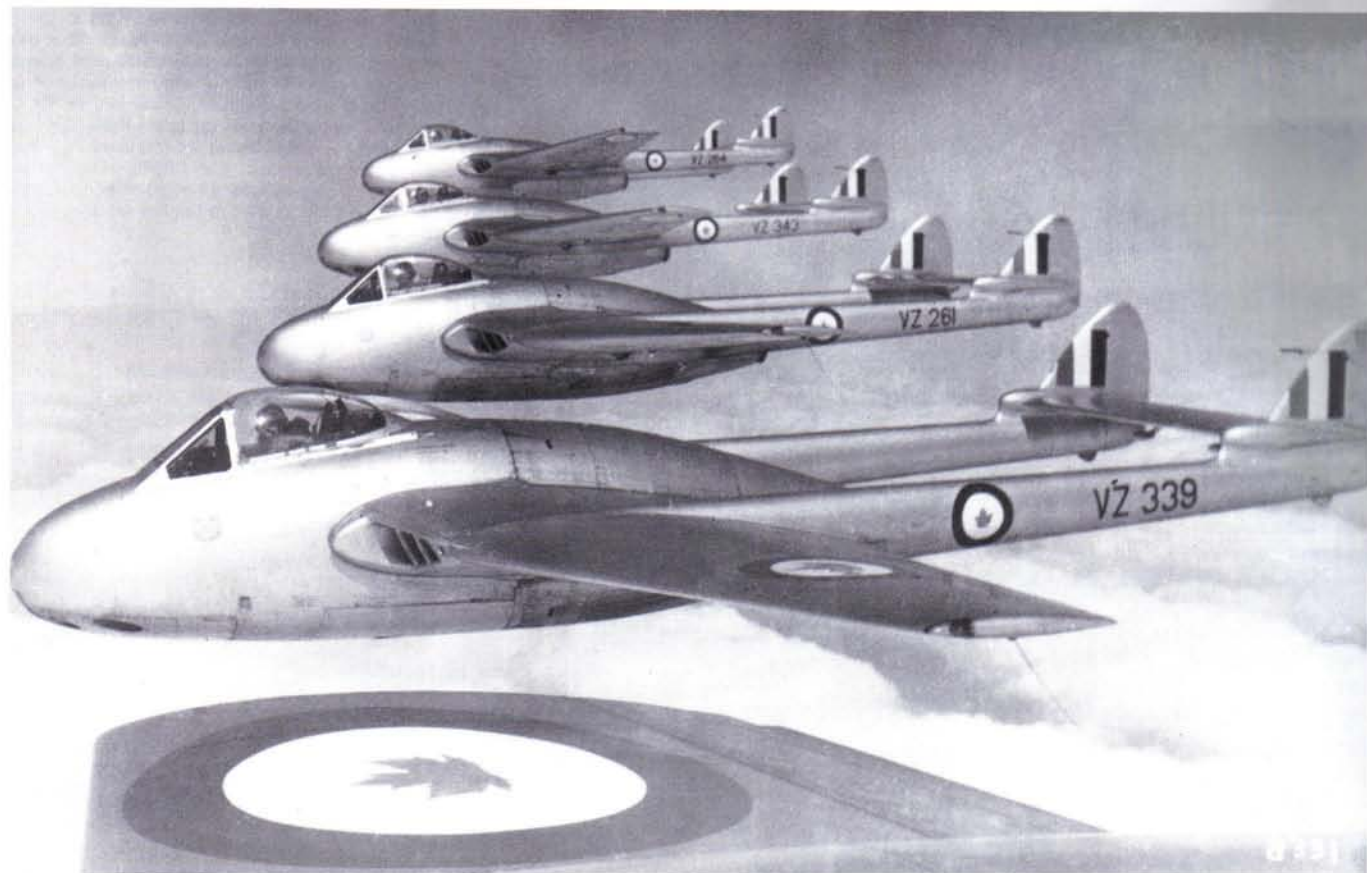


de Havilland Vampire T.11
WZ551:JN of the Central Flying
School (A), RAF Little
Rissington in the mid-1950s.



CFS badge
on WZ551





Above: RCAF Vampire FB.5s VZ339, VZ261, VZ343 and VZ264 of No. 421 Squadron when they were based in the UK in 1951 flying 'borrowed' RAF FB.5s when they took part in 28 exercises. (MAP) Right: Although carrying RCAF markings this FB.5 WA411 was on loan to No. 421 Squadron, seen here during a visit to Celle in Germany, when the squadron was rotated to the UK in mid-January 1951 to experience RAF operational techniques and conditions in the UK and Europe. Note the coloured rudders and lower boom end. (H Watson)



pilots on 24 January 1953 with the other three, VA-4 to VA-6, delivered by two Finnish Air Force pilots and Pat Fillingham on 15 September 1953.

The FB.52s were operated by HavLv 11 and 13 (Havittajalaivue meaning fighter squadron) at Pori, and later at Utti. One problem at that time was that there was no aviation kerosene available in Finland and paraffin oil was used. As this congealed at minus 35 C, a few flame outs occurred, but all landed safely.

Right: Ten Vampire FB.9s of No.1 Squadron Royal Rhodesian Air Force lined up at RAF Khormaksar, Aden in mid-1958 when they were attached to No.8 Squadron for operational experience. Below: Vampire F.3s of 402 (City of Winnipeg) Squadron based at Stevenson Field, Manitoba. The City crest is on the nose and the last two serial digits on the nosewheel door.





Jack to the fin of Vampire T.55 G-AOXH. This aircraft went on a 30,000 mile sales tour of South America in 1956-57 before being handed over to the Chilean Air Force. (BAe) Lower left: Pictures of Vampires in the markings of the Royal Ceylon Air Force (now Sri Lanka) are relatively rare but this factory shot is of T.55 CF503, which, after delivery to Ceylon was returned to sender and sold on to become VT-2 of the Finnish Air Force. (BAe)

France

In 1948 the Armée de l'Air, desperate to equip its post-war fighter squadrons with jet aircraft, ordered 30 ex-RAF Vampire F.Mk.1s. Five French pilots were sent to Hatfield in October 1948 for a conversion course, after which they ferried the first five aircraft to France.

The 30 F.Mk.1s delivered between 15 December 1948 and 8 January 1950 were TG284, TG288, TG294, TG310, TG311, TG331-333, TG335, TG339-344, TG347, TG350, TG353-355, TG378-379, TG383, TG422-423, TG425, TG428, TG430 and TG433. Before completion of this order, agreement had been reached to supply 94 ex-RAF Vampire FB.Mk.5s comprising VV568, VV718, VV720-723, VV725-736, VX950-952, VX954-972, VZ120, VZ129-130, VZ132-141, VZ144, VZ152-154, VZ161-169, VZ172, VZ176, VZ191, VZ196-197, VZ207-209, VZ211, VZ215, VZ217-221, VZ223, VZ226, VZ257-258, VZ270, VZ282, VZ284-285, VZ810,

Below: A close up of the Tom and Jerry cartoon carried on the nose of the Chilean Vampire T.55s. Bottom: Three Vampire T.55s of the Chilean Air Force in 1954 after delivery. J-04, the nearest, crashed on 7 September 1954 after entering a flat spin. It was replaced by the demonstrator G-AOXH. The last Vampires were retired on 31 December 1980. (BAe)

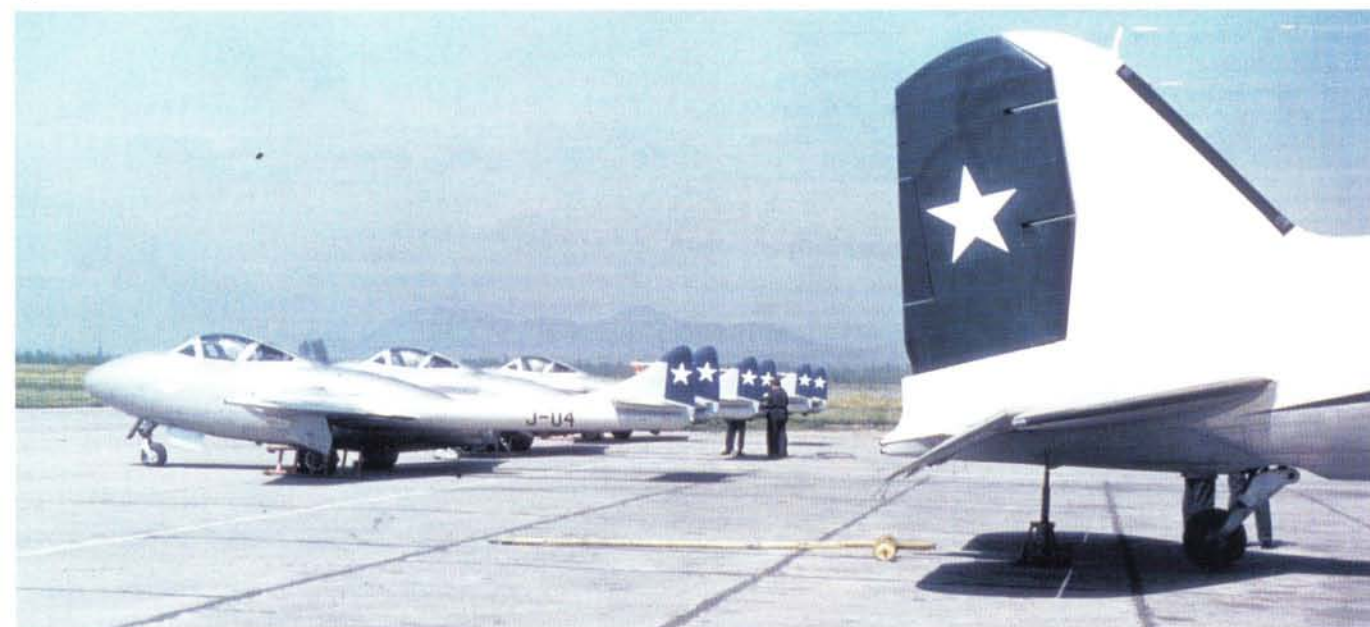


The Vampires were grounded on several occasions due to teething problems and lack of spares but later became quite reliable. Between 4 July 1957 and 11 August 1958 the FB.52s moved to HavLv 21 of the Hame Wing at Luonetjarvi AFB in Tikkakoski. Happy with their FB.52s the Finns ordered four Vampire T.55 trainers in March 1955. The four were made up from the ex-company demonstrator G-ANVH and three from the cancelled Ceylon order with serial tie-ups, VT-1/G-ANVH, VT-2/CF503, VT-

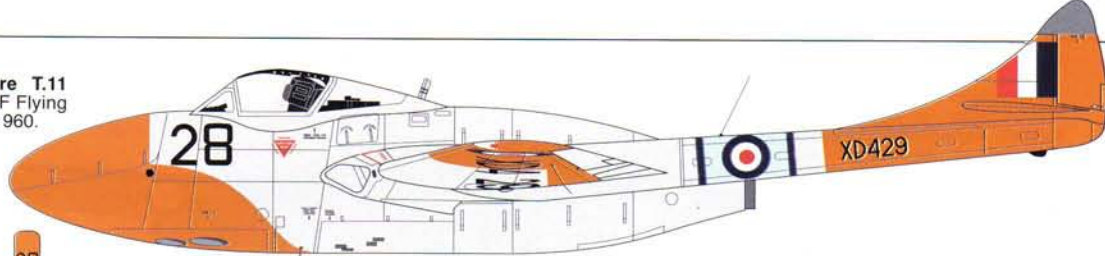
3/CF502 and VT-4/CF501. This order was later increased to nine aircraft and the additional machines, VT-5 to VT-9, were taken from the production line.

A mystery Vampire FB.52 was given to the Finnish Air Force in 1961 by Interarmco, an arms dealer. It was used as a ground instructional airframe until 1963.

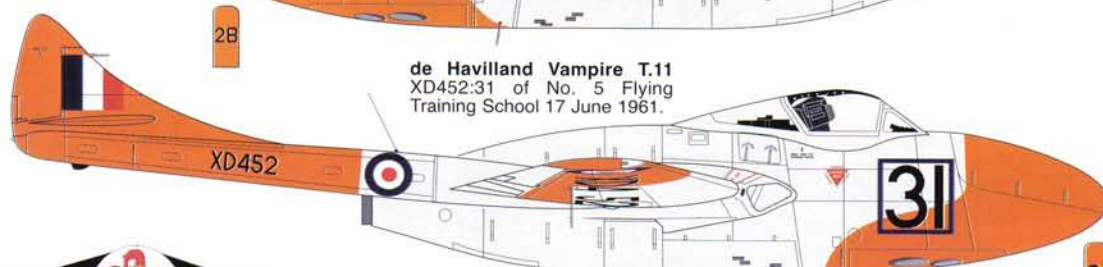
Last flight of an FB.52 was VA-6 on 2 February 1965, the last T.55 flight was by VT-8 on 15 July 1965.



de Havilland Vampire T.11
XD429:28 of the RAF Flying
College, Cranwell mid-1960.



de Havilland Vampire T.11
XD452:31 of No. 5 Flying
Training School 17 June 1961.



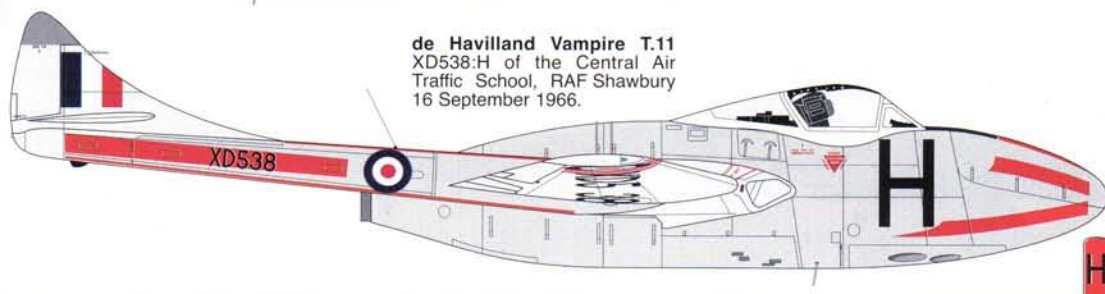
de Havilland Vampire T.11 XK624:32 of
the Central Flying School, RAF Little
Rissington 14 September 1971.



CFS badge
on XK624



de Havilland Vampire T.11
XD538:H of the Central Air
Traffic School, RAF Shawbury
16 September 1966.



Royal Egyptian Air Force Vampire FB.52s call in at a snow-covered Turkish airfield during the delivery flight to Egypt in 1950. (Dr D Nicolle collection)

VZ814-815, VZ817 and VZ820, all delivered between 31 May 1949 and 9 March 1950.

In the meantime, the Societe Nationale de Constructions Aeronautique du Sud-East (SNCASE) had signed an agreement with de Havilland to construct 67 Vampire FB.51s under licence but with parts supplied by de Havilland. At the same time it was agreed that SNCASE would build 120 FB.51s from parts made in France, including the Nene engine built under licence by Hispano-Suiza.

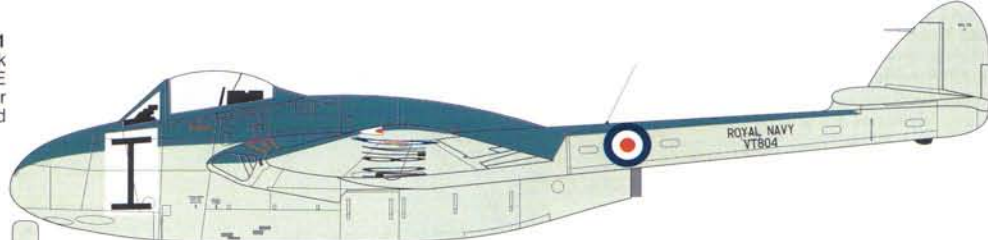
Design difference between the Vampire FB.Mk.5 and the Mistral was considerable and had a substantial effect on production of parts. The only identical units between the two aircraft were the forward part of the fuselage, the tailplane and booms. Internal equipment remained the same. One small but significant change was to the wing root where the structure was modified by adding a thin protective section to permit the enlargement of the air intake for the Nene and the fitment of a flexible fuel tank. In fact the whole fuel system had to be redesigned so that there were 15 tanks around the aircraft against nine in the FB.Mk.5.

This increased fuel capacity but created other problems, pressure air-venting was

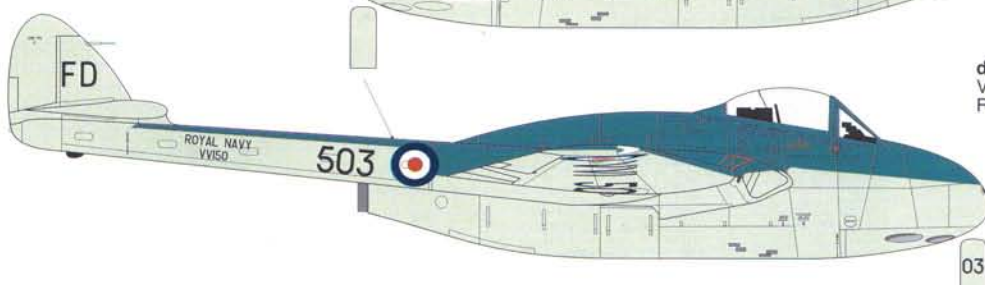
One of the 58 Macchi-reconditioned ex-Italian AF FB.52s, 1563, in service with the Egyptian AF. Note 63 on the nosewheel door in English and



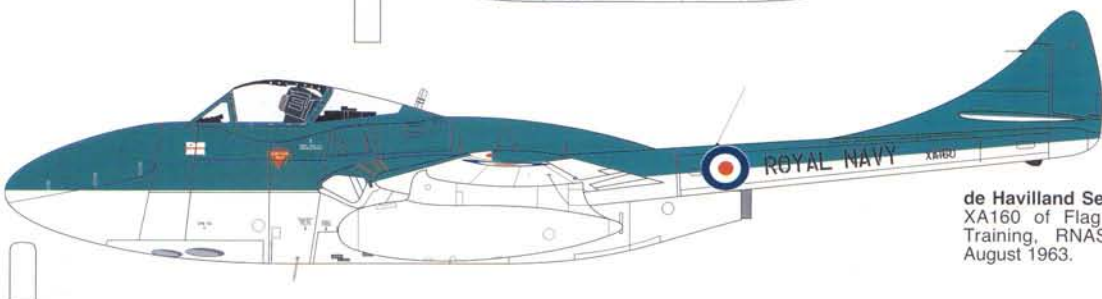
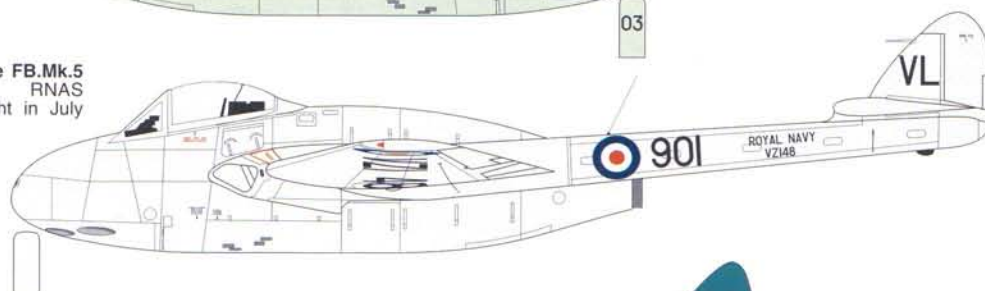
de Havilland Sea Vampire F.21
VT804 used for flexible deck
landing experiments by RAE
Farnborough on HMS Warrior
between 3 November 1948 and
31 May 1949.



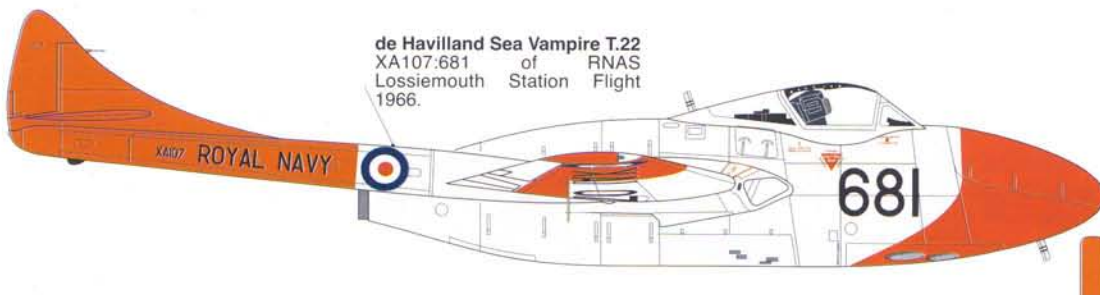
de Havilland Sea Vampire F.20
VV150:503-FD of 771 Squadron,
FAA, RNAS Ford, July 1953.



de Havilland Vampire FB.Mk.5
VZ148:901-VL of RNAS
Yeovilton Station Flight in July
1954.



de Havilland Sea Vampire T.22
XA160 of Flag Officer Flying
Training, RNAS Yeovilton, 10
August 1963.



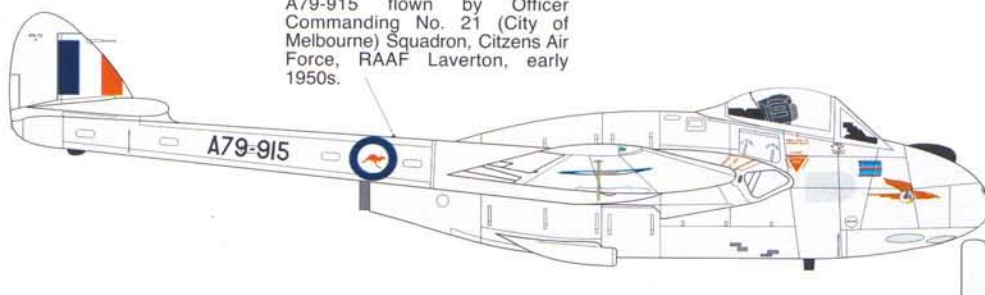
de Havilland Sea Vampire T.22
XA107:681 of RNAS
Lossiemouth Station Flight
1966.



de Havilland Sea Vampire T.22
XG743:798-BY of RNAS
Brawdy Station Flight in 1970.



Badge of
No. 21 (CAF)
Squadron RAAF



de Havilland Vampire FB.31
A79-915 flown by Officer
Commanding No. 21 (City of
Melbourne) Squadron, Citizens Air
Force, RAAF Laverton, early
1950s.



Above: Poor but interesting picture of Vampire FB.52s of the first Egyptian Air Force squadron to operate the aircraft type over Cairo Citadel. The aircraft serial number is written in European numerals on the tail boom and repeated in Arabic between the black bands around the tail boom. (EAF via Dr D Nicolle) Right: Vampire T.55 1577 of the Egyptian Air Force at Hurn before delivery in December 1955. Egypt ordered 12 T.55s, serialled 1570-1581, which were delivered between July 1955 and March 1956. (Dr D Nicolle collection)

required to prevent the flexible tanks parting from the wing. The engine mountings had to be completely redesigned and the cowlings reinforced which led to deformation and variation to the profile, causing vibration. The cowling needed to be larger and stronger, so had to be completely redesigned. The wheels were modified by de Havilland to obtain better braking and higher tyre pressures to compensate for the increase in weight.

The first French-assembled FB.51 (No.10001) flew on 27 January 1950 and the first French-built FB.51 (No.10068) on 21 December 1950. SNCASE, in its role as the parent firm, divided the production so that they would build the fuselage, tail booms and canopy at Marignane, near Marseille where the main assembly shops were located. The SNCASE factory at La Courneuve would build the fuselage fuel tanks, and the Toulouse factory would build sub-assemblies such as boom attachment rings, gun supports and flying controls. The SNCAN works at Meaulte was to build the wing fully equipped with electrical circuits, flying controls, hydraulics, pneumatics and undercarriage units.

Fitted with the Hispano-Suiza-built Nene 104B engine, it became known as the SE.532/535 Mistral, of which, after four pre-



production machines, they built 247 between June 1953 and February 1954.

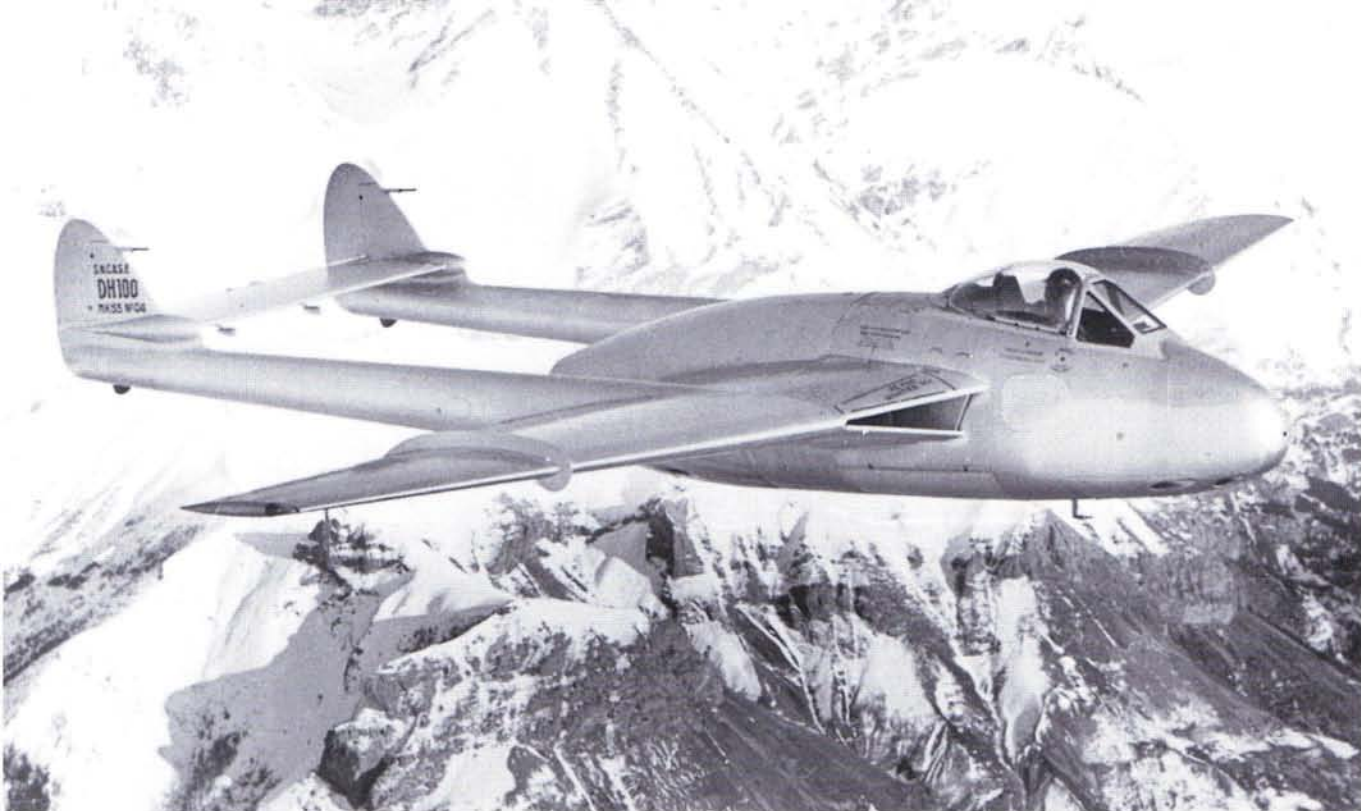
It was in FB.Mk.5 10061 on 12 May 1951 that French female pilot, Jacqueline Auriol set up a new 100 km (62 miles) closed circuit women's world speed record at 515 mph, beating the previous record by more than 40 mph. Her main opponent at the time was the

American woman pilot, Jacqueline Cochran. A decade of attempts at the record followed, where the record passed back and forth no less than nine times, with Auriol winning five.

French Vampires were in fairly constant action against rebellious native forces in French North Africa during 1951-61, trying



A French Air Force FB.5 VZ221 7-BA of EC1/7



Jacques Lecarne puts the fourth pre-production Mistral 04 through its paces over the French Alps. Noticeable are the re-styled air intakes for the Nene and wing fences. (Musee De L'Air)

to quieten them down with bombs, rockets, napalm and cannon fire.

Some Vampires, including four F.Mk.1s, were converted as radio-controlled drones for trials with MATRA air-to-air missiles. One FB.Mk.5, No.10119, test flew a reverse thrust Goblin in 1951 and two Mistrals were experimentally fitted with oleo-pneumatic skis attached to the mainwheels for trials between 1954 and 1956.

India

In 1947 India achieved independence from Great Britain but suffered partition with Pakistan which led to many skirmishes and



Above: Irish Air Corps T.55 185 which was delivered to No. 1 Squadron at Baldonnell on 15 May 1956. It was withdrawn from use and stored at Casement aerodrome, as seen here, and then delivered to France in 1978. (Richard Killen) Below: The markings of the Irish Air Corps displayed on this Vampire T.11 (ex-XE977) 198, which never flew with the IAC, and is preserved outside the Officer's mess at Baldonnell. (MAP)





Above: The three Vampire F.3s which were delivered to the Indian Air Force in November 1948 for pilot training. These were VT-CXHHB544, 545 and 546 and wore the 'Chakra' national markings, which were changed shortly afterwards. (BAe) Right: Vampire NF.10 ID1605 was from the second batch of refurbished ex-RAF aircraft and delivered to India from August 1957 onwards. The original cockpit hood is noticeable. (MAP)

border wars. Recognising the need to replace outdated piston-engined fighters with jets, the Indian Government signed an agreement with de Havilland in 1948 for 286 Vampire FB.52s. This was made up of 39 Hatfield-produced machines with the rest built under licence in India by Hindustan Aeronautics Limited (HAL).

On 23 May 1953 Vampire T.55 333 was delivered to Iraq with six Vampire FB.52s to form the Iraqi Air Force's first jet fighter squadron, No.5, based at El-Rashid near Baghdad. In 1960 it was returned to Chester for overhaul and fitting of ejection seats. The fuselage was replaced by one from T.11 XH316. (BAe)



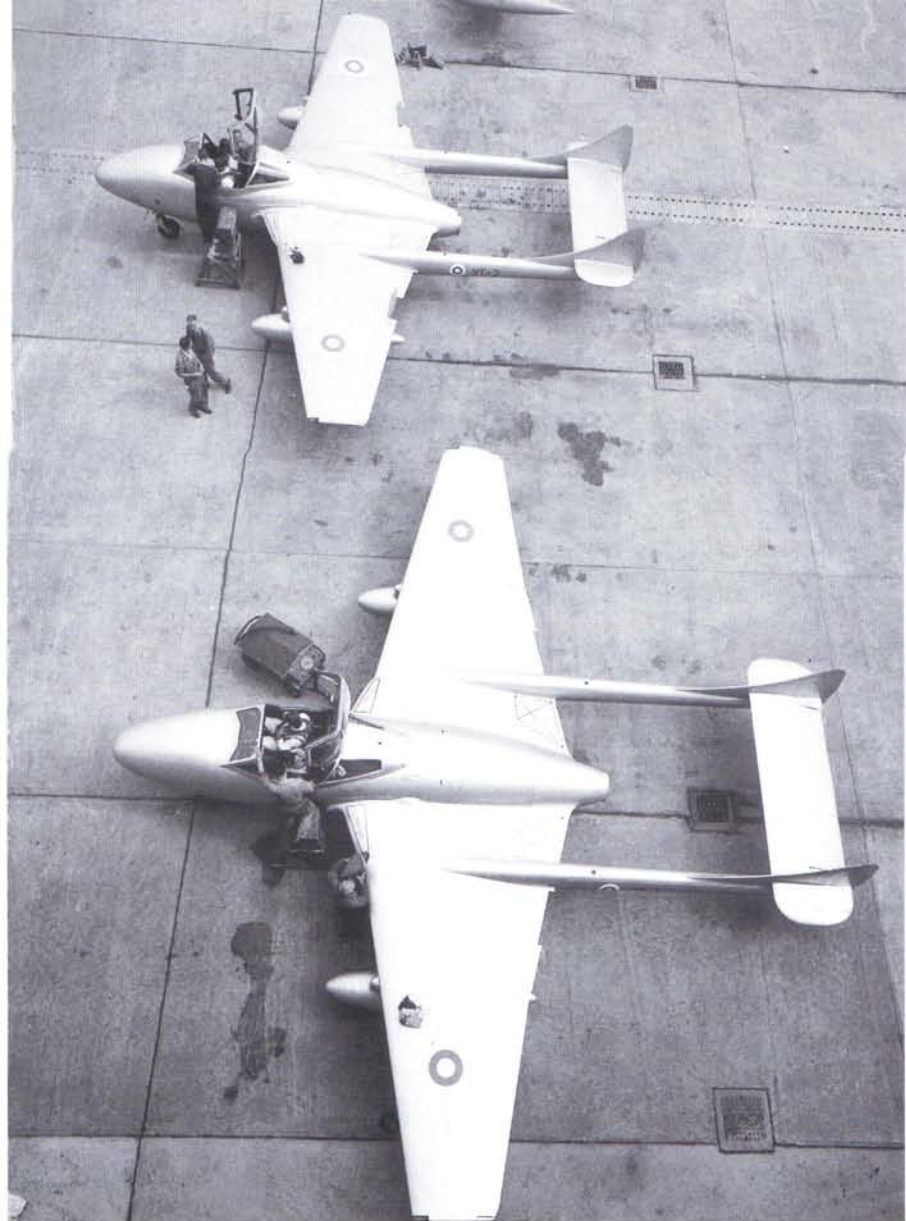
Vampire 1.55s prior to their delivery to the Finnish Air Force. The furthest one is VT-2, the ex-Ceylon CF503. All Finnish Vampires were withdrawn from use by 1965. (BAe)

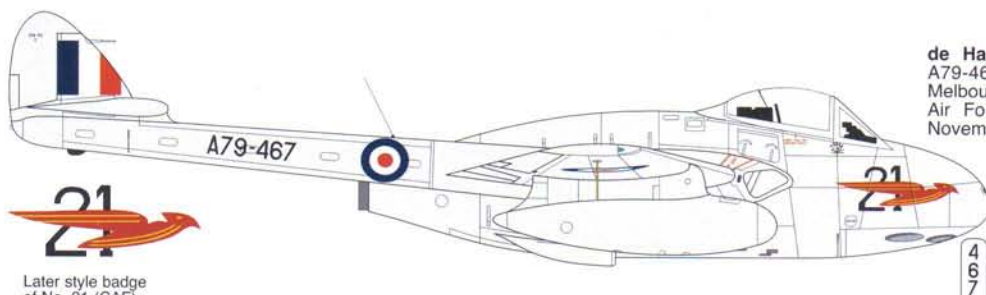
On 6 November 1948 three Vampire F.Mk.3s were delivered to India after being diverted from the Preston production line. Flying out to India at 30,000 feet and cruising at 200 mph provided confidence in the design and engine. They were to provide initial experience on jet aircraft and were delivered to No. 1 Aircraft Testing Unit at Kanpur. These Vampires were given Indian civil registrations for ferry purposes and also carried allotted Indian Air Force serials and the 'Chakra' national markings, which were changed shortly afterwards. The three Vampires, VV209/VT-CXH/HB544, VV210/VT-CXI/HB545, VV211/VT-CXH/HB546, were accompanied by a spares-carrying chartered Bristol Freighter F-BENC.

Between 1949 and 1963 some 16 front line and four Auxiliary IAF squadrons were equipped with the Vampire FB.52. The 39 aircraft from Hatfield, serialled HB732 to HB770, were delivered between September 1950 and June 1951. The first FB.52 built by HAL flew on 21 February 1952 and the 247 aircraft serials fell in the IB200 to 1707 and BB431 to 448 ranges.

To provide training 43 Vampire T.55s were ordered, IY467 to 552, all being ferried to India by Field Aviation Services of Croydon with the first four, IY467 to 470, being delivered in May 1953 and the last, IY552, in April 1954. A further 10 T.55s were ordered, serialled BY377 to 386, and delivered from October 1957 to February 1958. An additional batch of 60 T.55s were built by HAL, falling in the serial ranges, IY1591 to 1600 and BY390 to 478.

Vampire NF.54 3-167/MM6016 was the first NF.54 for the Italian Air Force and was delivered to 3 Group Fighter School at Foggia/Amendola on 4 June 1951. The NF.54s were finally replaced in October 1959 by the F-86K Sabre. (BAe)



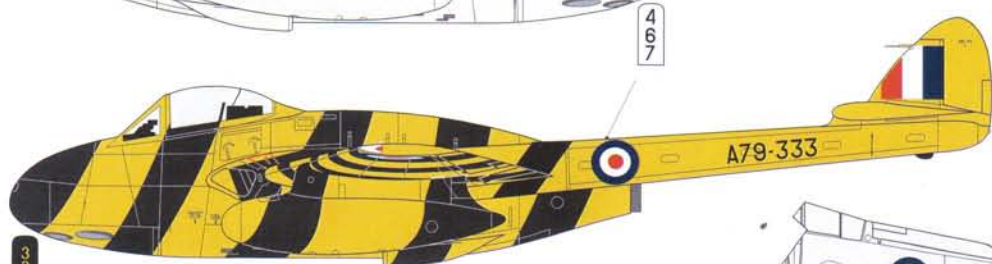


de Havilland Vampire FB.31
A79-467 of No. 21 (City of Melbourne) Squadron, Citizens Air Force, RAAF, Laverton in November 1953.



Later style badge of No. 21 (CAF) Squadron RAAF

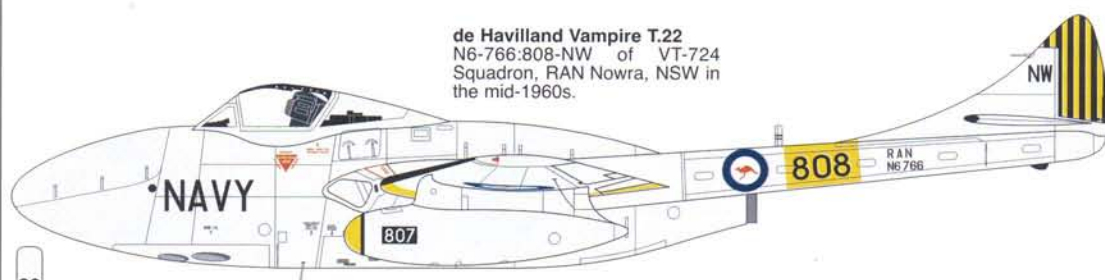
de Havilland Vampire FB.31
A79-333 of No. 2 (F) Operational Training Unit, Williamtown, January 1956. Full target towing stripes.



de Havilland Vampire T.35 A79-636 of the Central Flying School, RAAF, Llanherne in the early 1960s.

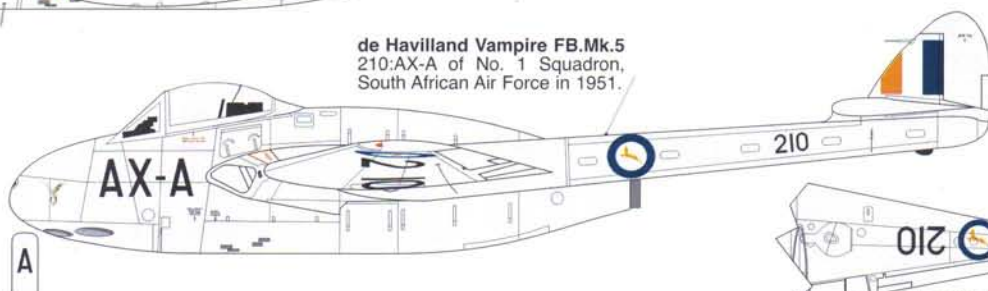
Location of underwing roundel

de Havilland Vampire T.22
N6-766:808-NW of VT-724 Squadron, RAN Nowra, NSW in the mid-1960s.



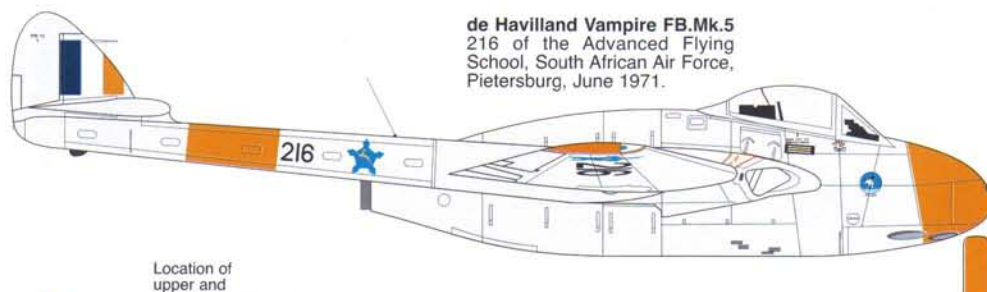
Location of upper wing roundel

de Havilland Vampire FB.Mk.5
210:AX-A of No. 1 Squadron, South African Air Force in 1951.



Location of underwing roundels, upper wing same position as RAF

de Havilland Vampire FB.Mk.5
216 of the Advanced Flying School, South African Air Force, Pietersburg, June 1971.

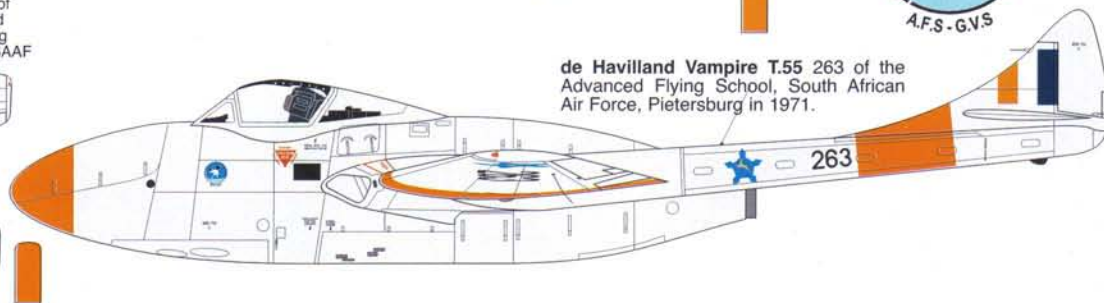


Location of upper and lower wing insignia SAAF



A.F.S. badge

de Havilland Vampire T.55 263 of the Advanced Flying School, South African Air Force, Pietersburg in 1971.

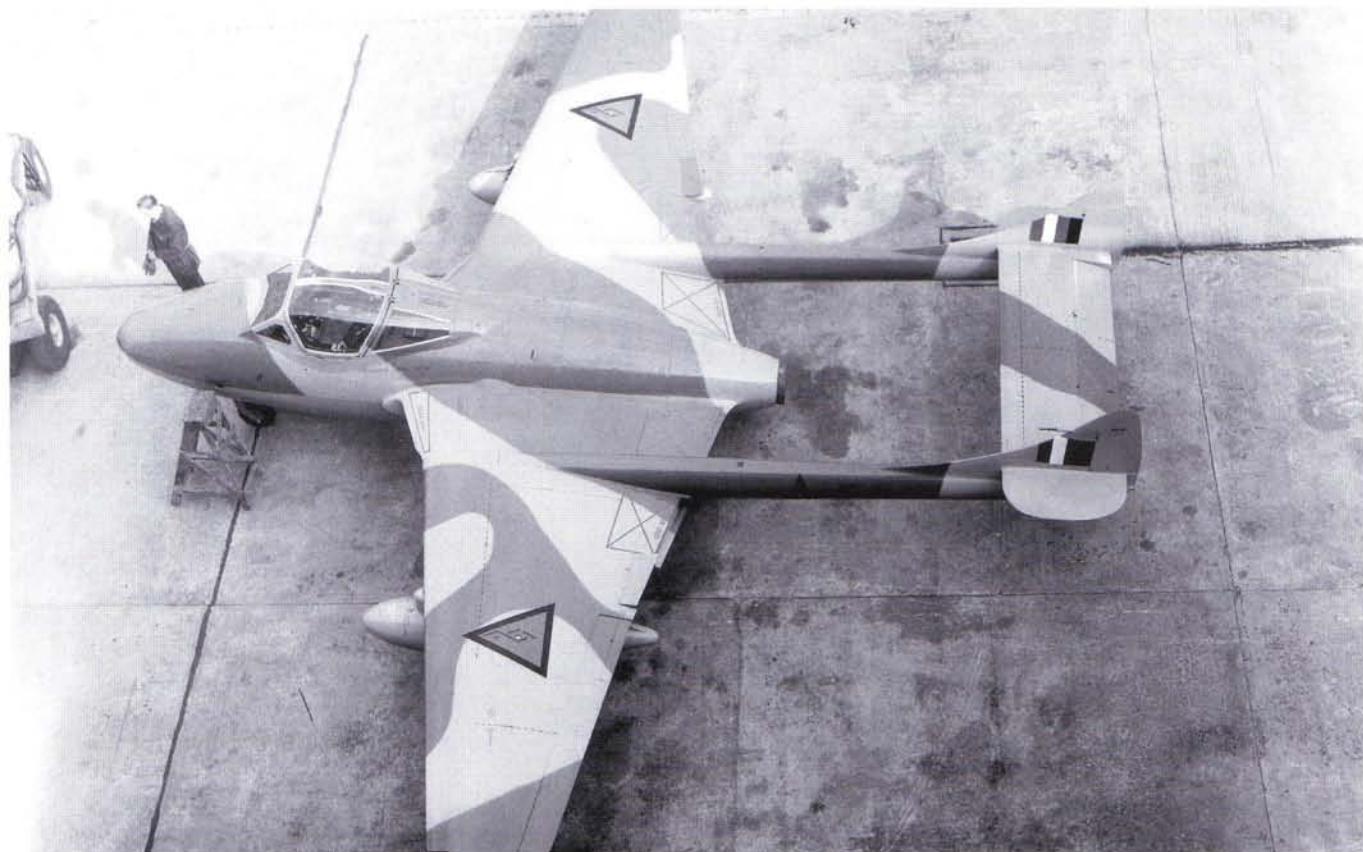




Above: Not many of the Italian Air Force Vampires carried distinctive markings, especially in the early days of operation. The use of PSP (Perforated Steel Planking) was fairly widespread until modern airfields came along. (Italian Air Force) Right: An early NF.54 in service with the Italian Air Force. Ordinary style ladders were used a lot on the early jets. Note the PSP again! (Italian Air Force)

As surplus Vampires came on the open market India purchased eight T.55s from Indonesia in 1957-58, Indian serials being BY601 to 608. In July 1963 another seven ex-RAF T.11s were acquired, WZ467, WZ471, WZ498, XD532, XE945, XE953 and XE983.

Excellent view of a late standard Iraqi Air Force T.55 showing the colour scheme and national markings. (BAe)





The Japanese were interested in the Vampire Trainer and ordered one T.55 for evaluation in 1955. Flown initially under Class B marking G-5-14 the aircraft was re-serialled 63-5571 when it arrived in Japan. Although no orders were placed the aircraft was preserved and is kept at Hamamatsu air base.

At least five T.55s, BY426, BY477, IY521, IY526 and IY531, were modified to carry cameras and re-designated PR.55, replacing the last Spitfire PR XIXs. The night fighter role was filled by 18 ex-RAF Vampire NF.10s, designated NF.54 for export. Serialled ID592 to 609 they were delivered between April and October 1954. These were supplemented in 1957 by a further 12 NF.54s, ID1601 to 1612.

In 1959 the Indian Navy bought 24 Sea Hawk F(GA)6s for use aboard the carrier *INS Vikrant* and to provide jet experience two Vampire FB.52s, BB431, IB797, and two T.55s, BY1008 and IY1591, were transferred to the navy.



Above: A pair of Vampire T.55s for the Syrian Air Force. However, these were never delivered due to a British Government arms embargo on Syria, and they languished at Hatfield until scrapped in 1960. (BAe) Below: A line up of Macchi-built Vampire FB.52s in temporary Syrian AF markings. These were actually built from a Syrian order on behalf of Egypt, and were delivered straight to Egypt and quickly painted up in Egyptian AF markings. Note the Macchi hangar in the background. (Italian Air Force)



Lebanese Air Force T.55 L160 seen here at the 1957 Farnborough Air Show. The marking on the rudder is the Cedar tree of Lebanon. L160 was the ex-de Havilland demonstrator G-APFV. (MAP)



During the early to mid-1960s, and again in 1971, Indian Vampires were in action against Pakistani forces and lost a number to enemy bombing and strafing attacks. The Vampire was no match for the Pakistani F-86 Sabres and lost a number in air combat. On 1 April 1975 most of the remaining Vampires were withdrawn from service and scrapped.

Indonesia

In 1955 Indonesia purchased eight Vampire T.55s, J-701 to 708. J-702 was flown to Hatfield on 23 September 1965 for a handing over ceremony with Indonesian officials. Thereafter, the rest of the aircraft were dismantled, shipped to Djakarta, where they were re-assembled and test flown, before being

Below: NZ5776 was one of 20 ex-RAF refurbished FB.5s (WA375) obtained by the RNZAF in 1956. The last two digits are repeated on the nosewheel door. NZ5776 is seen here in service with No. 75 Squadron in 1964. It still retains the No. 14 Squadron markings, which at that time were operating Canberras. (MAP) Right: One of the Vampire T.11s NZ5711 obtained by the RNZAF and seen here in service with No. 40 Squadron at Wigram in November 1972. The centre of the roundel now bears the NZ Kiwi.

handed over to the Indonesian Air Force on 20 February 1956. Two years later the Indonesian Government accepted an offer to re-equip its forces with Soviet-supplied arms and the Vampires were sold to India in 1958.

Iraq

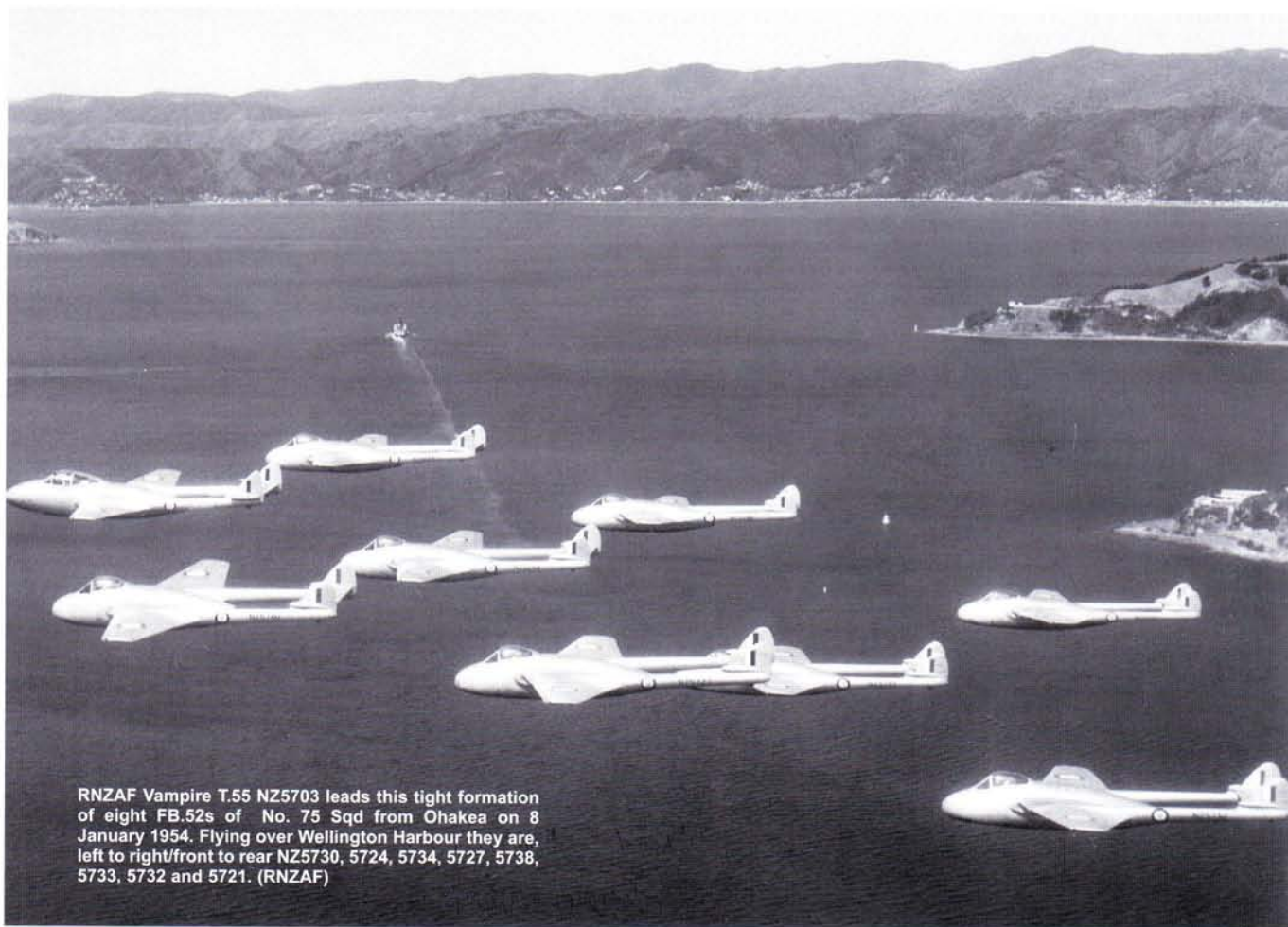
From close association with Great Britain

the Royal Iraqi Air Force (RIAF) was set up and based on RAF methods of flying and organisation. In the early fifties, following the recently introduced RAF practice of introducing students to jet flying early in their training, Iraq also ordered Vampires.

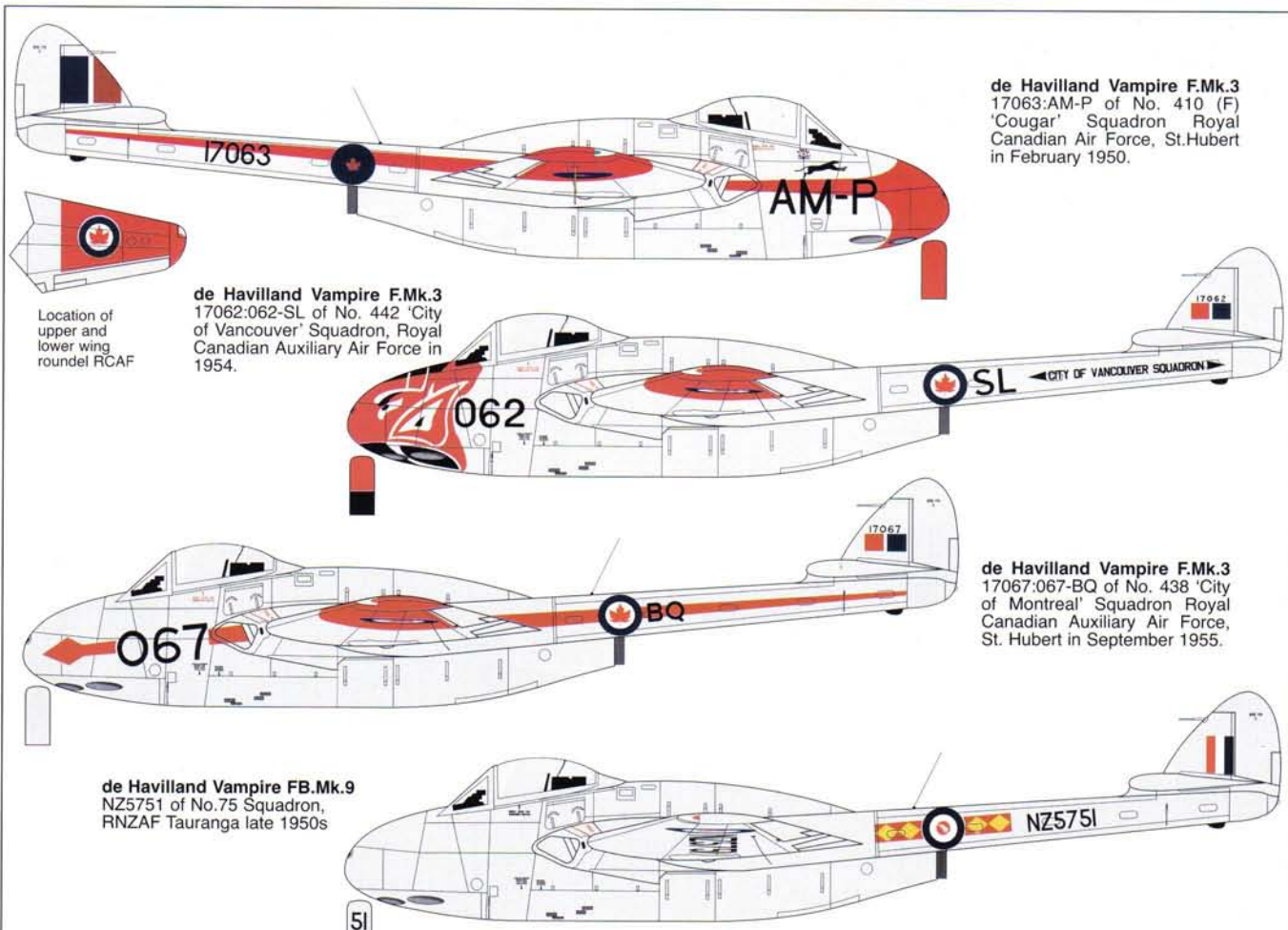
Twelve FB.52s, 336-344, 389-391, and 10 T.55s, 333-336, 386-388, were eventually ordered and delivered between May 1953 and November 1955. The first Vampires delivered equipped No 5 Squadron, Iraq's first jet fighter unit, at El-Rashid, near Baghdad.

In 1958, at the time of the coup that overthrew the Iraqi monarchy, only six FB.52s were listed as serviceable. However, in 1961 T.55 333 was sent to Chester for overhaul and fitment of ejection seats. Due to the state of the fuselage this proved difficult and the fuselage of ex-RAF T.11 XH316 was matched to 333's wings and tail section.





RNZAF Vampire T.55 NZ5703 leads this tight formation of eight FB.52s of No. 75 Sqd from Ohakea on 8 January 1954. Flying over Wellington Harbour they are, left to right/front to rear NZ5730, 5724, 5734, 5727, 5738, 5733, 5732 and 5721. (RNZAF)



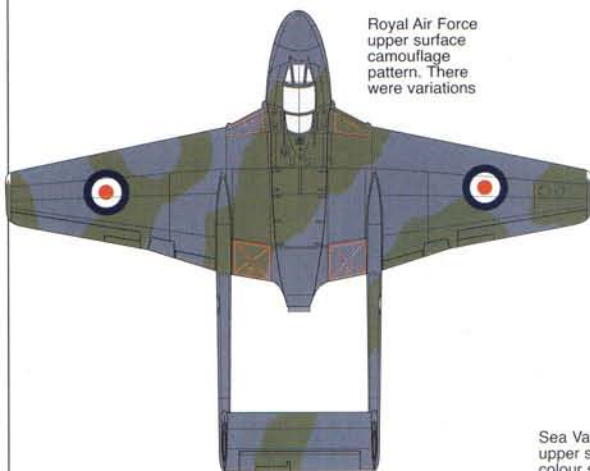
de Havilland Vampire F.Mk.3
17063:AM-P of No. 410 (F)
'Cougar' Squadron Royal
Canadian Air Force, St. Hubert
in February 1950.

de Havilland Vampire F.Mk.3
17062:062-SL of No. 442 'City
of Vancouver' Squadron, Royal
Canadian Auxiliary Air Force in
1954.

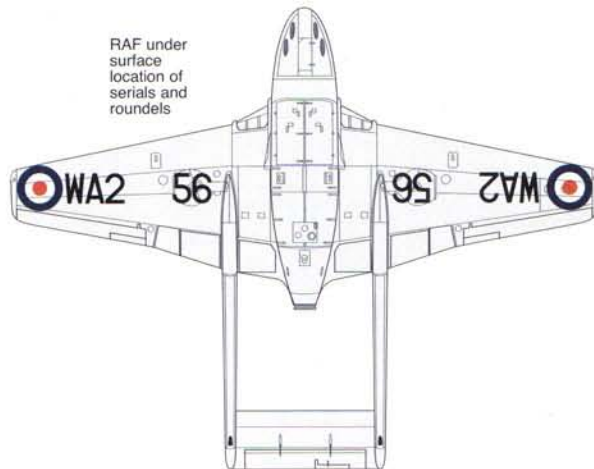
Location of
upper and
lower wing
roundel RCAF

de Havilland Vampire F.Mk.3
17067:067-BQ of No. 438 'City
of Montreal' Squadron Royal
Canadian Auxiliary Air Force,
St. Hubert in September 1955.

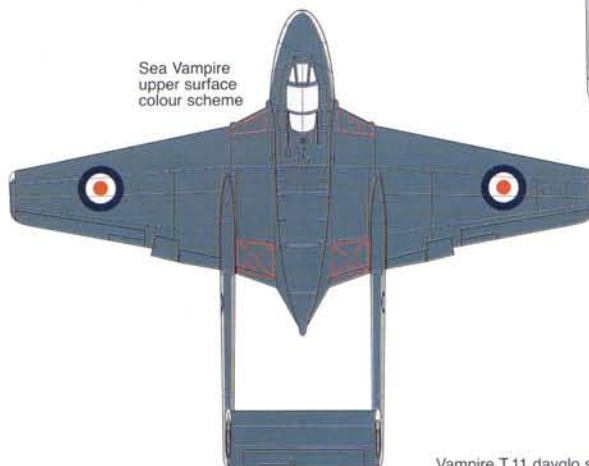
de Havilland Vampire FB.Mk.9
NZ5751 of No. 75 Squadron,
RNZAF Tauranga late 1950s



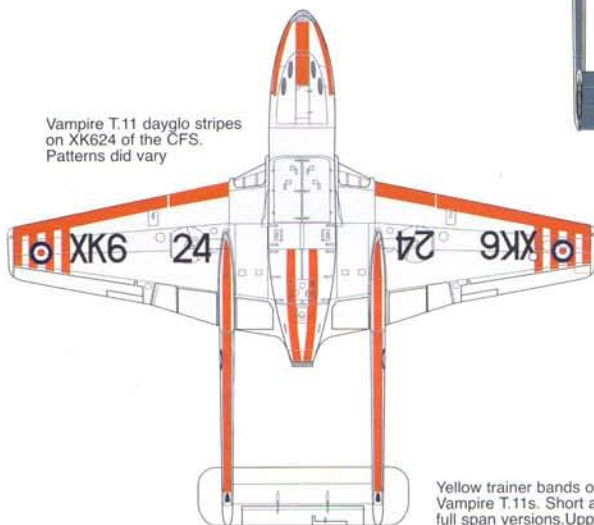
Royal Air Force
upper surface
camouflage
pattern. There
were variations



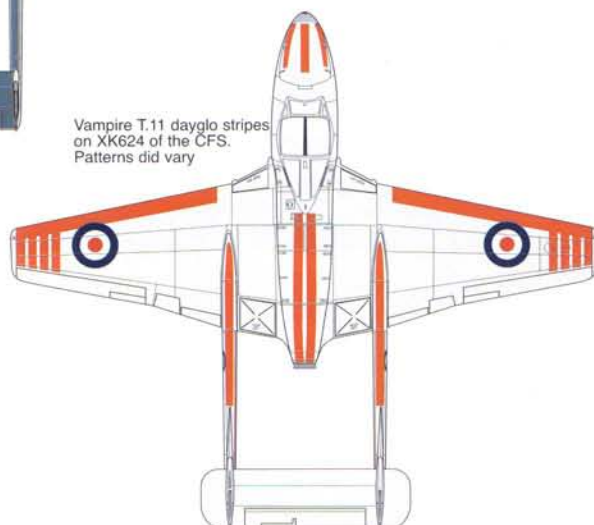
RAF under
surface
location of
serials and
roundels



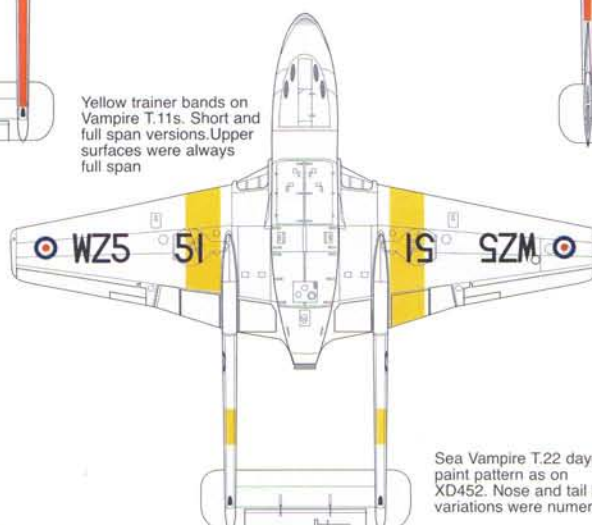
Sea Vampire
upper surface
colour scheme



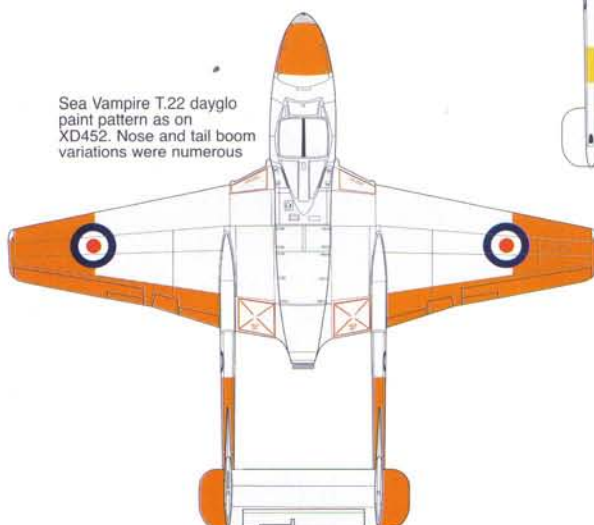
Vampire T.11 dayglo stripes
on XK624 of the CFS.
Patterns did vary



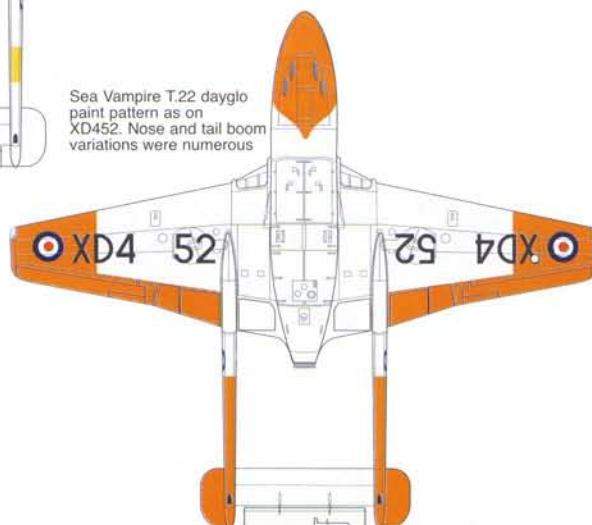
Vampire T.11 dayglo stripes
on XK624 of the CFS.
Patterns did vary



Yellow trainer bands on
Vampire T.11s. Short and
full span versions. Upper
surfaces were always
full span



Sea Vampire T.22 dayglo
paint pattern as on
XD452. Nose and tail boom
variations were numerous



Sea Vampire T.22 dayglo
paint pattern as on
XD452. Nose and tail boom
variations were numerous



Some Vampires were still operational in late 1961 when observed attacking Kurdish rebels in the north of the country.

Ireland

The Irish Air Corps (IAC) joined the jet league in 1956 when they bought three Vampire T.55s, 185 to 187, with 185 delivered on 15 May and the other two on 20 July. These were added to the strength of No.1 Squadron based at Baldonnell, near Dublin. Three more T.55s, 191 to 193, were ordered in 1960 with 191 delivered on 19 January 1961 and the final pair on 16 March. One ex-RAF T.11, XE977, was given to the IAC in

Vampire FB.Mk.52 VO445 belonged to Wing Commander Flying at Gardermoen Air Base, Nils K. Jorstad who had his initials used as the squadron code which was normally ZK-U. The same aircraft was flown by his successor Werner H. Christie who had the codes WHC displayed for a short period before he exchanged his Vampire for a Thunderjet. (RNorAF via Nils Mathisrud)

Above: The second Vampire T.55 5802 delivered to the Portuguese Air Force. Both aircraft ended their days with the Katanga Air Force, although they never flew in their colours. (BAe) Right: One of the two T.55s ordered by Portugal and delivered in late 1952. 5801 was an early model with the restricted canopy and no ejection seats. (Museo Do Ar)



August 1965 for ground instructional duties. By 1977 they had all been withdrawn from service with 186 going to a private buyer in the USA, becoming N4861K, and 193 was scrapped. The rest were donated to various museums.

Italy

Like many countries after World War 2 Italy was looking for ways to acquire jet fighters for the Aeronautica Militare Italiana (AMI) and re-establishing its own aircraft industry. After protracted discussions with all the different aircraft manufacturers, the Italian Government eventually settled for the de Havilland Vampire. This was after de Havilland had sent a Vampire for their inspection, demonstration and technical evaluation. John Derry, the de Havilland test pilot, flew this Vampire FB.Mk.5 from Hatfield to Rome, over 900 miles, on 4 November, 1948 in two hours fifty one minutes. An impressive start to the proceedings, enhanced the following September by an arranged goodwill visit of No. 73 Squadron, then based at Malta. The five Vampires, VF345:Q, VT809:Z, VT813:Y, VT855:B and VV204, were to fly to Ciampino and then on to Malpensa on 23 September 1949.

Unfortunately the formation failed to find the airfield at Malpensa and ran short of fuel with all five Vampires forced landing. Four were written off and the other, relatively undamaged, was repaired only for the pilot to run off the end of the runway and write the last one off!

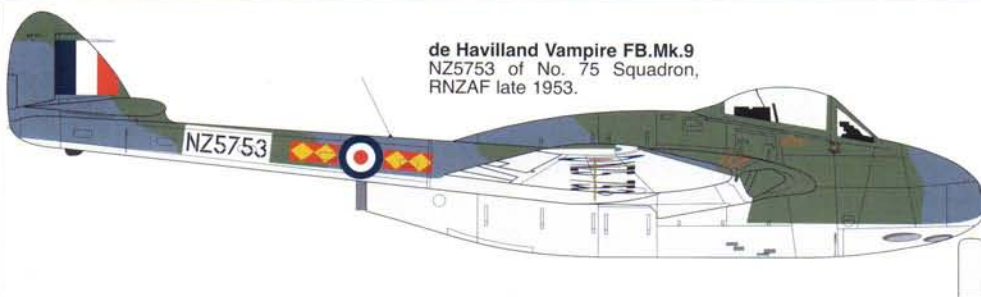
An agreement signed on 24 October 1949 catered for five FB.Mk.5s, 51 FB.52s and 14 NF.54s from production lines in the UK plus 120 FB.52s to be built by Fiat and Macchi under licence. The number of FB.52s was increased to 150 at a later date, and included

Vampire FB.Mk.5 (ex-RAF VV212) was sold to the Royal Norwegian Air Force in July 1948 and given the codes B-AG. It crashed in July 1952 when in use with No. 336 Squadron during an attempted landing when it ran off the runway (R.NorAF)

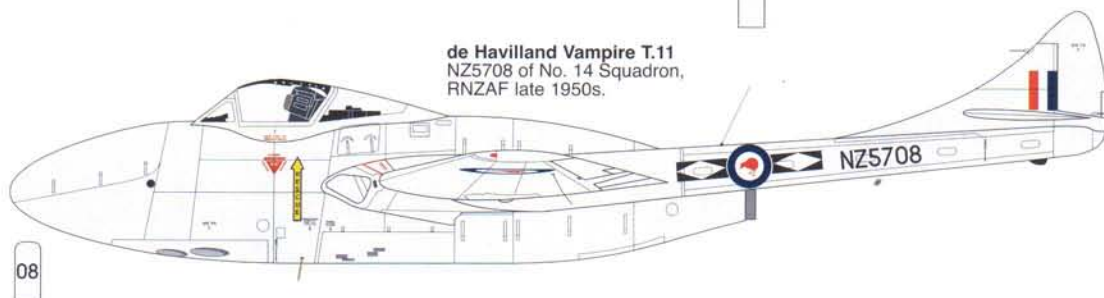


Above: Vampire FB.52 coded ZK-Q of No. 337 Squadron, Royal Norwegian Air Force, flying over the Svartisen glacier in northern Norway on 27 September 1954 during exercise Polar Mist. The pilot was Jan Nordhagen. (Rolv Hopen 337 Squadron via Nils Mathisrud) Below: Amid winter snow, the first three Vampire T.55s at Vaernes repainted in RAF markings before their ferry flight to Britain. The aircraft were incorrectly serialised XI772, XI773 and XI773 whereas they should have been in the XJ range. (Erling Sole via Nils Mathisrud)

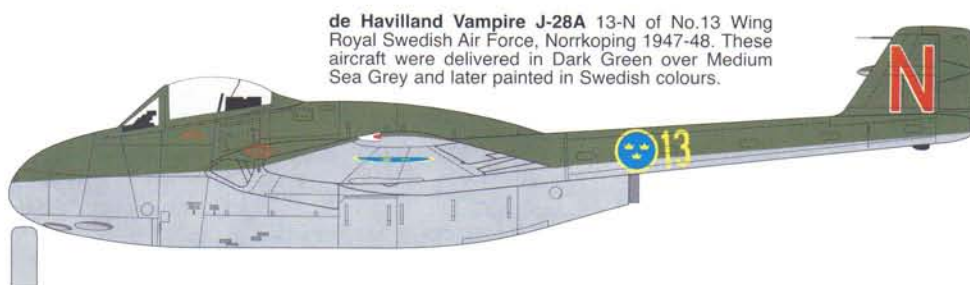




de Havilland Vampire FB.Mk.9
NZ5753 of No. 75 Squadron,
RNZAF late 1953.



de Havilland Vampire T.11
NZ5708 of No. 14 Squadron,
RNZAF late 1950s.



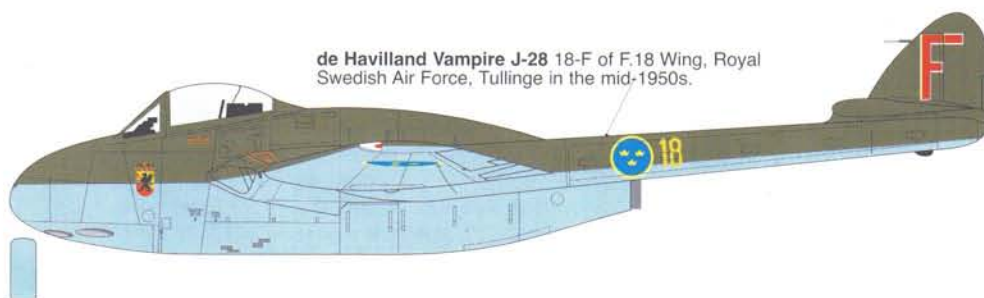
de Havilland Vampire J-28A 13-N of No.13 Wing
Royal Swedish Air Force, Norrköping 1947-48. These
aircraft were delivered in Dark Green over Medium
Sea Grey and later painted in Swedish colours.



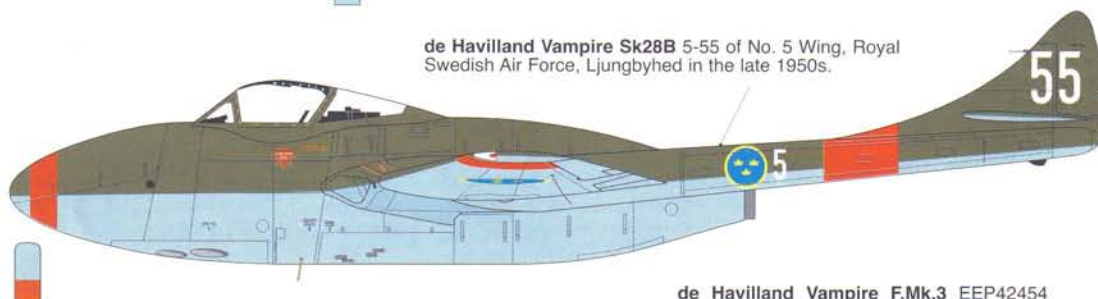
Position of upper and lower roundels
on Royal Swedish Air Force aircraft.



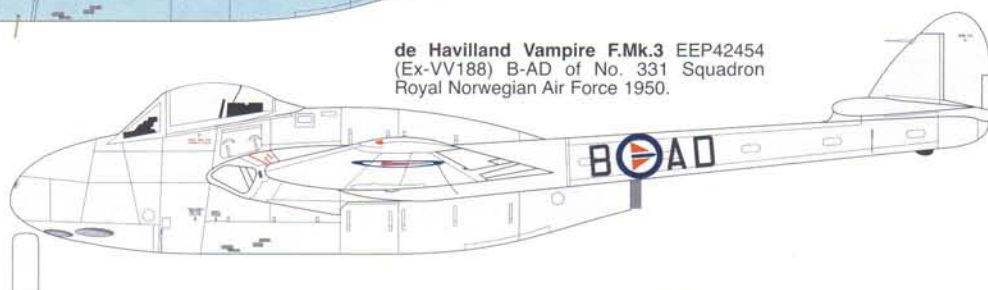
F.18 Wing
badge



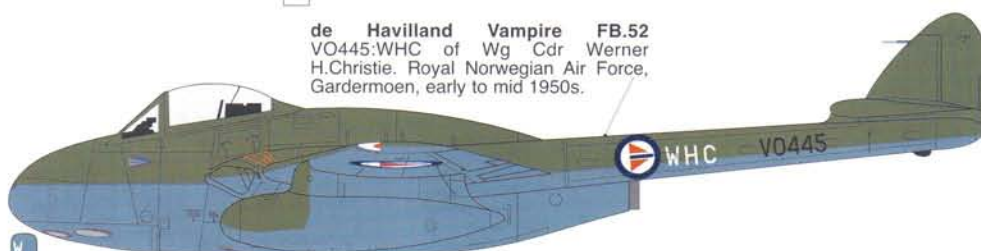
de Havilland Vampire J-28 18-F of F.18 Wing, Royal
Swedish Air Force, Tullinge in the mid-1950s.



de Havilland Vampire Sk28B 5-55 of No. 5 Wing, Royal
Swedish Air Force, Ljungbyhed in the late 1950s.



de Havilland Vampire F.Mk.3 EEP42454
(Ex-VV188) B-AD of No. 331 Squadron
Royal Norwegian Air Force 1950.



de Havilland Vampire FB.52
VO445:WHC of Wg Cdr Werner
H.Christie, Royal Norwegian Air Force,
Gardermoen, early to mid 1950s.



The reason why all of these No. 337 Squadron Royal Norwegian Air Force Vampires were parked together at Vaernes in October 1954 is not exactly known but it is presumed that this was the change over period to the Thunderjet which was coming into service at that time. All three versions used, the F.Mk.3, FB.52 and T.55 are in there somewhere. (Furunes, Stjoldal, via Nils Mathisrud)

a number of Goblin and Ghost engines, the latter for Venoms, also being manufactured under licence.

The first five FB.Mk.5s taken from the line, VZ252 to 256, which became MM6000 to 6004:S3-151 to S3-155, were flown from Hatfield to Foggia-Amendola, the AMI jet training school, on 11 March 1950 by Italian

Air Force pilots. Pilots and Vampires for the first operational units – 79 and 81 Squadriglia (Flight) of 6 Gruppo (Squadron) of the 4 Stormo Caccia (Fighter Wing) at Napoli arrived in August 1951.

The quick adaption and settling in with their new aircraft during August and September saw 16 Vampires of 4 Stormo taking part in Exercise 'Cirrus 6' in Germany. 6 Gruppo later provided six Vampires for the Cavallino Rampante, the Italian Air Force aerobatic team. Other units eventually operating the Vampire included 7 Group Fighter School, 2 Stormo at Bergamo, 4 Stormo at Napoli-Capodichino, 1, 3 and 4 Zona Areas and the Reparto

Sperimentale Volo at Ciampino.

Between July 1950 and December 1951 all the 51 FB.52s were delivered plus 10 spare sets for assembly by Fiat. These fell in the serial ranges of MM6005 to 6019:S3-156 to 166 and MM6024 to 6059:S3-171 to 210.

Once Italian Vampire production got under way, Macchi assembled 27 at Varese with the first flying on 18 December 1951, Fiat produced 93, MM6023 to 6142, at Turin and flew their first Vampire on 22 December 1951. Another batch of 30, MM6155 to 6184, were shared 13 to 17 between Fiat and Macchi respectively. The 14 Vampire NF.54s, starting with MM6016/3-167, began to come off the Hatfield line during 1951, but after the first two, production switched to Chester. The first two NF.54s from Hatfield were delivered on 4 June, and the last two, MM6151:3-219 and MM6152:3-220, from Chester on 25 March 1953. The 3 Group Flight School received all 13 (MM6017 crashed on 28 October 1951) Vampire NF.54s which became the Scuola Caccia Ogni Tempo – the All-Weather Fighter School. Over the next few years their Vampires took part in numerous NATO exercises including exchange visits

Vampire T.55 coded ZK-W of No. 337 Squadron, Royal Norwegian Air Force photographed near Sola Air Base, Stavanger in 1952-53. (Nils Mathisrud)





with RAF squadrons.

Vampire NF.54s were progressively withdrawn from use between May 1956 and October 1959 when finally replaced with F-86K Sabres. An embargo on the sale of mil-



itary equipment to Egypt by the UK led to Italy agreeing to supply them with Vampire FB.52s. Some 58 ex-AMI FB.52s were completely refurbished by Macchi and during March 1956 43 were flown Brindisi-Athens-Cairo with the other 15 going by sea in crates. Macchi built 45 new FB.52s to replace those going to Egypt. Republic F-84 Thunderjets and F-86 Sabres gradually replaced the Vampires in service and by 1960 they had all been withdrawn.

Japan

The Japanese Air Self-Defence Force (JASDF) ordered one Vampire T.55 in 1955 for evaluation. UK 'Class B' markings, G-5-14, were applied for de Havilland test flying purposes, but when delivered to Japan in November 1955 JASDF serial 63-5571 was allocated. This machine had the new style canopy and ejection seats. It was demonstrated to JASDF officers during March and April 1956 but no orders were placed.

Jordan

The British Government presented the Royal Jordanian Air Force (RJAF) with 10 Vampire FB.Mk.9s which were delivered from November 1955 to February 1956. These were ex-RAF FB.Mk.9s WL506,

Vampire FB.5 208 of the South African Air Force which survived and is now on show at the SAAF Museum at Ysterplaat. Arriving in June 1950 208 joined No 1 (City of Pretoria) Squadron at Waterkloof. The squadron used the code letters AX- on the nose usually with an individual aircraft letter. (APN)

WR190, WR201, WR210, WR248, WR250, WR258, WX202, WX206 and WX208. When delivered they received RJAF serials F600 to 609 but most of these were never applied and the FB.Mk.9s continued to fly with RAF serial numbers.

In October 1956 Egypt gave the RJAF seven Vampire FB.52s which became F610 to 616. Three ex-RAF Vampire T.11s, XD548:T209, XD552:T210 were delivered in July 1955, and WZ545:T213, delivered in 1960, were also donated to assist training, especially as the RJAF had ordered the Hawker Hunter.

By mid-1958 when the Middle East crisis loomed only six of the fighter-bombers were operational. In June 1967, in a conflict with Israel, some Vampires were lost to attacking Israeli aircraft. Following the end of the Six Day War in 1967 the last six Vampire fight-

The very last Vampire delivered to the SAAF was a T.55 277, seen here being used by the Station Flight at Waterkloof. It was later sold to the Rhodesian Air Force. (MAP)



A late standard Vampire T.55 263 from the last batch of 21 sold to the South African Air Force in 1954-55. The emblem on the nose is of the Advanced Flying School at Pietersburg. This aircraft, with 18 other T.55s was acquired by Rhodesia following their withdrawal from use in 1967. (APN)

as ground instructional airframes.

New Zealand

As part of a major re-equipment plan, the Royal New Zealand Air Force (RNZAF), amongst other types, ordered 18 Vampire FB.52s. Serialled NZ5721 to 5738, the Chester-built FB.52s were delivered between October 1950 and August 1951. No. 14 Squadron, based at Ohakea, became the first to operate the type with the delivery of NZ5721.

In 1951 an order had been placed for six Vampire T.55s, NZ5701 to 5706, which were delivered between July and December 1952. These were the early version without ejection seats and framed canopy. To cover attrition, eight further Vampire FB.52s were ordered in 1952 but the gap was filled by refurbished ex-RAF FB.Mk.5s, WA299, VZ843, WG846, WA379, WA249, WA338, WA376 and WA311 which became NZ5750 to 5757. These were delivered between July and September 1953.

As part of the Commonwealth Strategic Reserve No. 14 Squadron was deployed to Cyprus on 7 October 1952. Their FB.52s were handed over to No. 75 Squadron at Ohakea and they were issued, on loan, the following RAF Vampire FB.Mk.9s, WG872, 876, 883, 884, 928, WL501, 507, 510, 581, WP994, 998, WR106, 107, 115, 125, 141,



er-bombers were withdrawn but the T.11s continued in use until 1972.

Katanga

The Portuguese Air Force sold their two Vampire T.55s to the Katanga Air Force (KAF) in September 1961. Neither ever flew again due to their poor condition, and as such, never received KAF markings. But it didn't matter because a strafing attack by an Indian Air Force Canberra B(1)58 destroyed them both.

Lebanon

The Lebanese Air Force, (LAF) like many of its Middle East counterparts, was set up along similar lines to the RAF and acting on advice ordered Vampires. AT.55, L151, was delivered on 24 August 1953 to convert pilots to jets. Six Vampire FB.52s, L152-153 and 155-158, were delivered between October 1953 and April 1955. By then two additional T.55s, L154, L159, had been ordered and were delivered with the last FB.52s in April 1955.

The ex-de Havilland T.55 demonstrator, G-APFV, was sold to the LAF in November 1957 and became L160. Internal strife in 1958 led to Vampires being used operationally against rebellious tribesmen in the Shouf Mountains, and constant air patrols near the Syrian border and Bekaa Valley.

The acquisition of Hawker Hunters via American military funding, provided an opportunity to include some Vampires in the package. Seven ex-RAF Vampires, four FB.Mk.5s, VV453, WA128, WG929 and WL586, and three FB.Mk.9s, VV694, WA365 and WL497 were delivered during

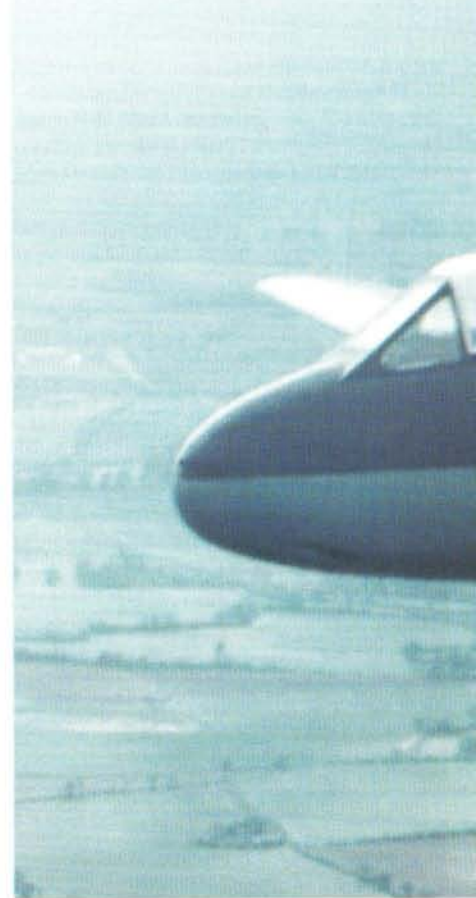
May and June 1958 to become L161-167. The LAF Vampires were mainly withdrawn in 1964, but odd ones were operated as late as September 1974. The retired T.55 L160 was used for aerial survey work by the Geographical Affairs Directorate but may have not been the only one.

Mexico

When the Fuerza Aerea Mexicana (FAM) began to modernise its air force in 1960 it bought 15 Lockheed T-33A jet trainers and 15 Vampire F.Mk.3s from the RCAF. The 14 Vampires identified were ex-RCAF numbers 17002, 17012, 17016, 17017, 17019, 17030, 17039, 17040, 17044, 17047, 17065, 17067, 17078 and 17085 and started to be delivered in 1960 through to 1962 to eventually become FAM-1 to FAM-15.

In FAM service the Vampires were sprayed an overall drab olive with yellow bands around the wings and tail booms and yellow drop tanks. In these colours they became known as 'Avocados'. Escuadron Aereo de Palea 200 became the first unit to operate the Vampire. Two ex-RAF Vampire T.11s, WZ414 and XD439, were bought in 1962 to be used as operational trainers. Most of the Vampires had been retired by 1970 and placed into storage. Some were later handed over to an air college at Zapopan to be used

Right: Up on flight test is one of the early J-28B/FB.50 Vampires of the Swedish Air Force. Some 310 were ordered as stop-gap fighters until the J-29 arrived in sufficient numbers. By 1955 most had been declared obsolete. (BAe via Tony Buttler) Below: This Vampire J-28C/T.55 28436 was from a small batch of 10 ordered in 1953. These were the early model with framed canopy and no ejection seats. The markings are of the F.5 Wing based at Ljungbyhed. (APN)





145, 149, 195, 202, 207-210, 215, 234, 235, 246 and WX207. They also used T.11s WZ521, WZ526, WZ587 and WZ611. The squadron moved to Tengah, Malaya in April 1955 to support 'Operation Firedog', the Vampires being replaced by Venom FB.Mk.1s in November. During their time with No. 14 Squadron the FB.9s retained their RAF serial numbers.

The NZ Territorial Air Force operated three squadrons of P-51 Mustangs that were due to be replaced by Vampires in 1955.

However, revised plans meant that NZTAF pilots would in future be trained during their annual camp. To do this, more Vampires would be required and in 1955 five ex-RAF T.11s, XH265, XH266, XH271, XH317 and XH366 were ordered as NZ5707 to 5711. These were the later models with ejection seats and delivered between December 1955 and September 1956.

For single-seat training 21 Vampire FB.Mk.5s were ordered in 1956, these being ex-RAF stock VZ838, WA248, WG826,

Flying near Hatfield this Swedish J-28C/T.55 displays the classic lines of the Vampire trainer, if looking somewhat more aggressive than the RAF's T.11 overall silver scheme. (BAe)

WA317, WA383, WA388, WA342, WA314, VZ841, WA374, VZ852, WA306, WA444, WL493, WA452, WA451, WA411, WA385, WA375, WA392 and WG805 which became NZ5758 to 5778 respectively. Shipped out with this order were some sets of FB.Mk.9 wings which had the modifications allowing the fitting of refrigeration equipment.





During 1955/56 the RNZAF bought four ex-RAF Vampires for ground instructional duties, these being F.Mk.1 TG443/INST166, F.Mk.3 VT806/INST167, FB.Mk.9s WL514/INST169 and WR202/INST171. Some 23 RNZAF Vampires, withdrawn from flying duties, were converted to ground instructional airframes. Like the UK, the TAF squadrons were disbanded in 1957, and with No. 75 Squadron re-equipping with Canberras, meant that a lot of Vampires were no longer required and most were put into storage. Some flew with the FOCU until it was disbanded in June 1958, but following the setting up of a Jet Conversion Unit operated until early 1960. Replaced by the Bomber Operational Conversion Unit (BOCU) they operated two Vampire FB.Mk.5s and six T.11s for jet conversion and army co-operation duties.

Below: The large colourful marking on this T.55 has 'Last but not least Vampi MF5 88' written around the orange circle. Inside is a picture of a formation of Vampires sweeping round the Alps. U-215 is on the nosewheel door suggesting U-1215 from the final batch. Right: Vampire T.55 U-1208 from the last batch delivered in 1958-59, but had been re-serialised from U-1008 when all trainer numbers were changed.

No. 75 Squadron returned from Tengah in March 1962 and was set up with an establishment of eight FB.Mk.5s and four T.11s providing the same training as BOCU, which was disbanded. A few Vampires continued in use until 1972 when the last four, FB.Mk.5s NZ5770 and NZ5774, and T.11s NZ5708 and NZ5711, were flown to the storage depot at Woodbourne on 15 December.

Norway

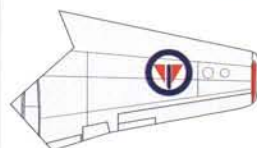
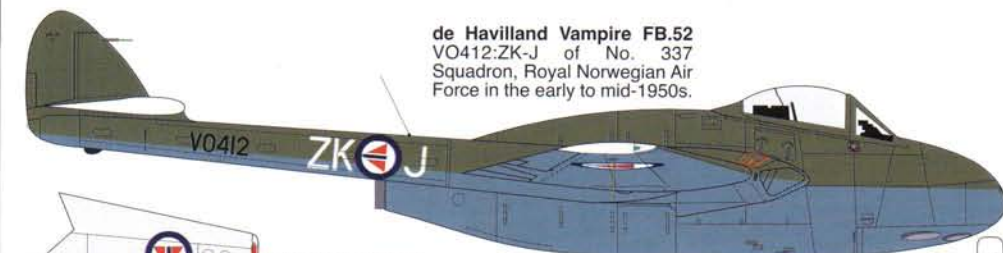
On 10 November 1944 the free fighting elements of Norwegian forces in Britain were officially combined to form the Royal Norwegian Air Force (RNoAF). The units were under the operational control of the RAF but commanded by Norwegians. When hostilities ceased in 1945 the RNoAF were operating Spitfires and Mosquitoes, but recognised the advantages offered by jet fighters.

Flt Lt Eirik Sandberg, Norway's sole internationally accepted test pilot, joined the de Havilland test pilots to assess the Vampire. He first flew a Vampire F.Mk.1 on 9 January 1947 and in May flew the Gloster Meteor, which he preferred. However, it was felt that the Vampire with its greater angle of climb, smaller turning radius and shorter landing run was more suitable to Norway's geography.

Norway ordered four Vampire F.Mk.3s, later increased to 20, and 36 FB.52s in 1948 to replace its ageing piston-engined fighters.



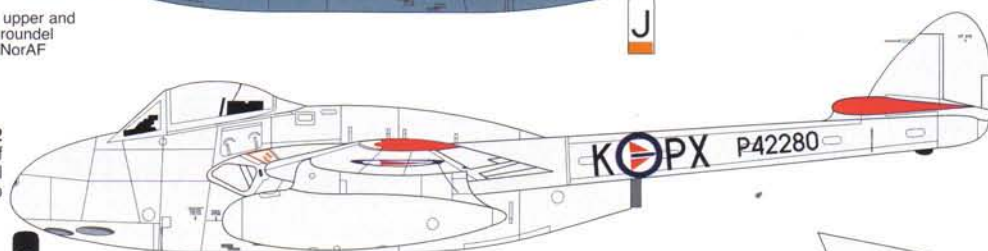
de Havilland Vampire FB.52
VO412:ZK-J of No. 337
Squadron, Royal Norwegian Air
Force in the early to mid-1950s.



Location of upper and
lower wing roundel
(900mm) RNorAF

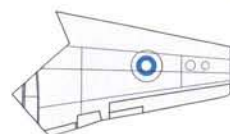
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de Havilland Vampire FB.52
EEP42280 (ex-VG693) PX-K of
No. 336 Squadron, Royal
Norwegian Air Force early to
mid-1950s.



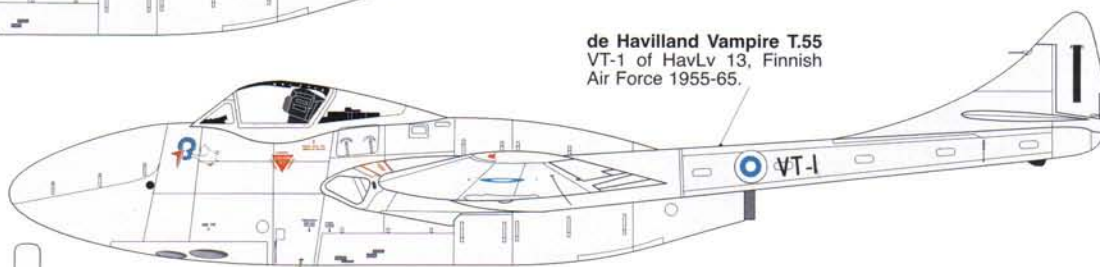
K

de Havilland Vampire T.55 VH-6 of
Havittaajalaivue 13, Finnish Air Force, in
1957



Location of upper and
lower wing roundel
Finnish Air Force

de Havilland Vampire T.55
VT-1 of HavLv 13, Finnish
Air Force 1955-65.



Badge of HavLv 13
Finnish Air Force



de Havilland Vampire FB.52 4-44 of 4
Stormo Italian Air Force, Napoli-
Capodichino in 1952.

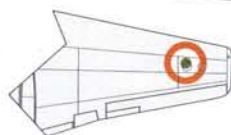
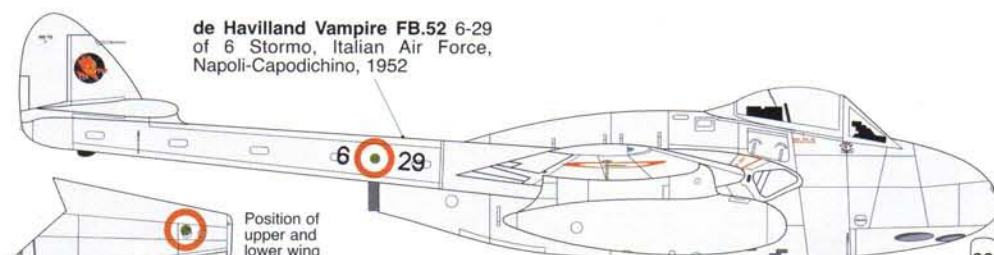


44



4 Stormo
badge

de Havilland Vampire FB.52 6-29
of 6 Stormo, Italian Air Force,
Napoli-Capodichino, 1952



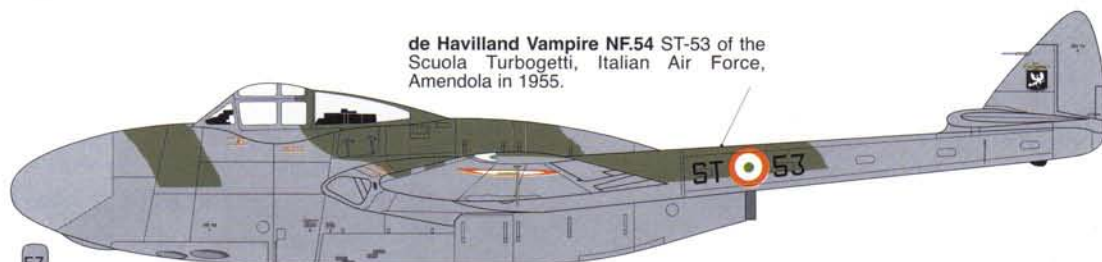
Position of
upper and
lower wing
roundels
Italian Air
Force

29



6 Stormo
badge

de Havilland Vampire NF.54 ST-53 of the
Scuola Turboggetti, Italian Air Force,
Amendola in 1955.

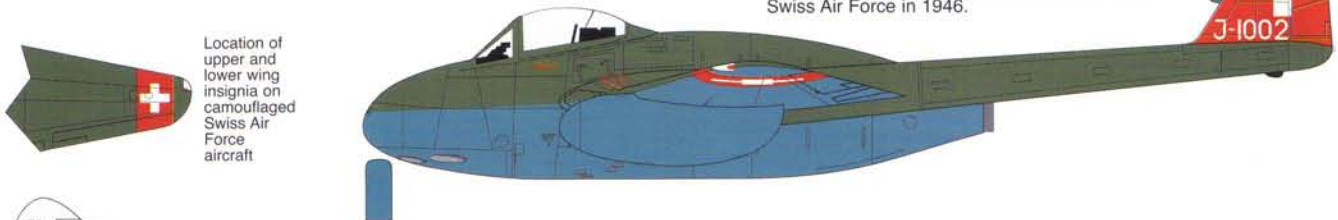


53



Scuola
Turboggetti
badge

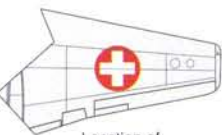
de Havilland Vampire F.Mk.1 J-1002 of the Swiss Air Force in 1946.



Location of upper and lower wing insignia on camouflaged Swiss Air Force aircraft



de Havilland Vampire FB.Mk.6 J-1102 of the Swiss Air Force Zeilfliegercorps in the late 1960s.



Location of upper and lower wing insignia on Swiss Air Force aircraft



de Havilland Vampire T.55 U-1202 of the Swiss Air Force used for AS-11 missile tests in the 1990s

02

de Havilland Vampire FB.Mk.5 10033, 17-XG of Escadrille 2/17, French Air Force in the mid-1950s



The F.Mk.3s were drawn from the Preston production line to speed up delivery and these were VF323-326, VF328, VF330-331, VF334, VG692-696, VT832-835, VV188, VV212 and VV214. The first four F.Mk.3s, VT832/B:AC, VT833/B:AE, VT834/B:AB and VV188/B:AD, were set for delivery but the latter was left behind with a minor fault. The other three left Hatfield on 29 April 1948. In Norway they formed C Flight of No. 331 Squadron on 10 May for technical evaluation.

An early problem was the cracking of the canopy, once at 35,000 ft and another at 41,500 ft. The problem was finally solved by

making oblong bolt holes in the perspex to allow expansion. All the F.Mk.3s had been delivered by October 1949 with deliveries of the FB.52s starting in December and continuing until April 1951. Production of the 36 FB.52s was shared between Hatfield, 11 aircraft, and Chester, 25 aircraft.

The F.Mk.3s were painted overall aluminium and the FB.53/T.55s dark green on top surfaces and PRU blue on the undersurfaces. C Flight of No. 331 Squadron later became No. 336 Squadron, with the first two FB.52 squadrons, with 28 Vampires each, numbered 337 and 338. In early October 1950 12 F.Mk.3s of No. 336 Squadron flew to North

Weald in the UK to take part in 'Exercise Emperor', returning on 17 October.

Squadron codes and identification of individual aircraft was changed in 1951 with Nos. 336 and 337 Squadrons receiving codes PX- and ZK- respectively. D Flight of 337 used SI, but this code was later given to No. 339 Squadron and No. 781 Squadron

The delightfully colourful markings of this Vampire FB.6 J-1111 are shown to good effect. The banding extended to the lower wing surface, but also had the Swiss Air Force roundel applied. Pity about the drop tanks not being marked the same way, but presumably they had been borrowed from Swiss Air Force Venoms. (MAP)





used DP. Each aircraft also had an individual letter but as it could be used over and over again by different aircraft a more positive identification was required. A system based on the aircraft construction number was used so that all aircraft from the English Electric factory (c/n EEP) was reduced to just P, for example P42234, and de Havilland numbers used in full, were V0421.

Six Vampire T.55s were ordered in late 1951 with the first delivery on 4 July 1952, all six joining Nos. 336 and 337 Squadrons. However, the RNoAF began to receive Lockheed T-33s for training and the T.55s were returned to the UK in 1955. These were refurbished at Hullavington and re-issued back to the RAF as XJ771 to 775.

Norway, as part of the NATO northern Europe commitment was pressured to operate more modern aircraft and in 1957 the final nine F.Mk.3s and 25 FB.52s were withdrawn from service. Some found their way to gate guard duty or became instructional airframes.

One other Vampire was operated by the Warbirds of Norway. They bought ex-Swiss Air Force FB.Mk.6 J-1146 in 1991 and after refurbishment, including removal of the Swiss pointed nose and markings, it first flew in its new guise on 14 May 1993, becoming the first jet fighter to join the civil register as LN-17.

Portugal

Two of the early style T.55s, those with no ejection seats and early canopies, were ordered and delivered in 1952 for initial evaluation. However, the Portuguese Air Force settled for the Lockheed T-33A and the two T.55s, 1801 and 1802, joined a jet training squadron until 1961 when they were withdrawn and sold to Katanga. Both were shipped to South Africa in September 1961. Oddly, a Vampire FB.Mk.9 ex-SAAF 248, was donated to the Portuguese air museum at Averca.

Rhodesia

The Southern Rhodesian Air Force (SRAF) was still operating Spitfire F.22s in 1952 and ordered 16 Vampire FB.Mk.9s and 16 Vampire T.11s to replace them the following year. The FB.Mk.9s were ex-WX212, WX219, WX228, WX231-233, WX235-242, WX256 and WX260, which became SR100 to 115 and were delivered between December 1953 and August 1954. The T.11s were XE816-819, XE823-826, XE938-941, XH268-270, XH275, XH276, XH277, XH278, XH279, XH280, XH281, XH282, XH283, XH284, XH285, XH286, XH287, XH288, XH289, XH290, XH291, XH292, XH293, XH294, XH295, XH296, XH297, XH298, XH299, XH300, XH301, XH302, XH303, XH304, XH305, XH306, XH307, XH308, XH309, XH310, XH311, XH312, XH313, XH314, XH315, XH316, XH317, XH318, XH319, XH320, XH321, XH322, XH323, XH324, XH325, XH326, XH327, XH328, XH329, XH330, XH331, XH332, XH333, XH334, XH335, XH336, XH337, XH338, XH339, XH340, XH341, XH342, XH343, XH344, XH345, XH346, XH347, XH348, XH349, XH350, XH351, XH352, XH353, XH354, XH355, XH356, XH357, XH358, XH359, XH360, XH361, XH362, XH363, XH364, XH365, XH366, XH367, XH368, XH369, XH370, XH371, XH372, XH373, XH374, XH375, XH376, XH377, XH378, XH379, XH380, XH381, XH382, XH383, XH384, XH385, XH386, XH387, XH388, XH389, XH390, XH391, XH392, XH393, XH394, XH395, XH396, XH397, XH398, XH399, XH400, XH401, XH402, XH403, XH404, XH405, XH406, XH407, XH408, 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A typical end for many RAF aircraft including this Vampire F.Mk.3 VT801, formerly with Nos. 73 and 608 Squadrons, which was used by the Fire School at RAF Catterick in 1963. (MAP)

by sea in two batches of five, the first in January 1950, and the second five in June. The first re-assembled FB.Mk.5 was flown at Ysterplaat, Capetown on 8 February by a de Havilland test pilot, R. W. Jamieson. Two days later it flew to Fisantekraal, where the first batch of SAAF pilots were to be trained. A follow-on order for 10 FB.52s, 211-220, arrived in 1951. To provide jet training six Vampire T.55s, 221-226, were ordered, these having no ejection seats and the early canopy; the first arriving in South Africa in May 1952. A further order for 21 later standard T.55s, 257-277, were built at Chester and delivered between February 1954 and June 1955.

Some 30 new Vampire FB.Mk.9s, 227-256, were ordered to re-equip No. 2 Squadron on its return from Korea in 1953. Canadair Sabres arrived in September 1956 after which most of the Vampires were withdrawn and put into storage, and finally scrapped in 1967. As recorded elsewhere, 36 were sold to Rhodesia.

A pair of T.55s were still operational as test beds for electronic equipment at the Test Flight and Development Centre at Waterkloof until retired in February 1985. Various examples were retained for museums, including an ex-Zimbabwe T.11.

Sweden

Determined to operate jet fighters from an early stage, the Royal Swedish Air Force (RSwedAF) asked for enough Vampires to equip one full wing. In an unprecedented order, Sweden signed for 70 Vampire

A Vampire T.11 that was allotted an instructional airframe number, 7734M, but probably never had it applied. (Tony Buttler)

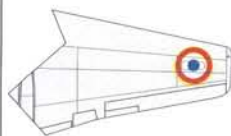
F.Mk.1s on 9 February 1946, plus spare Goblin 2 engines and a licence to produce Goblin 3s at the Svenska Flygmotor factory at Trollhatten. Serialled 28001-28070, the Vampire F.Mk.1 would be known in Swedish service under the designation J-28A. Deliveries by air began in June 1946 and the final aircraft arrived in August 1947.

The following year 310 Vampire FB.50s, known as J-28Bs, serialled 28101-28410, were ordered as a stop gap fighter until the SAAF J-29s arrived. Chester built all but 13 of the aircraft, which were built at Hatfield. Deliveries started on 27 May 1949 and continued until summer 1952.

In 1953 a number of Vampires replaced SAAF B-18 bombers in the ground-attack role using rocket projectiles. These were re-designated A-28B, the A standing for Attack, J stood for Fighter. This was a short-lived role for the A-28Bs which were withdrawn in 1955, and, designated Sk.28B, were issued to the Swedish Air Force CFS at F.5 Ljungbyhed to be used in the training role, lasting until 1967.

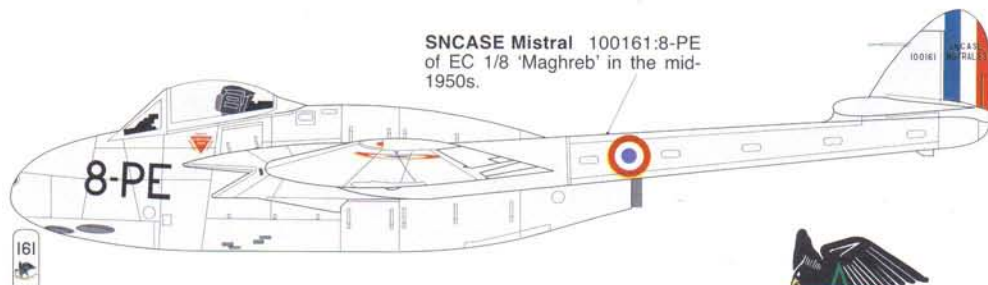
Flying training joined the jet age in 1953 when the RSwedAF ordered 20 of the early model Vampire T.55s and designated them J-28Cs. Built at Hatfield the T.55s, 28411-430, were delivered between February and July 1953. These were put into use at Ljungbyhed which consisted of a basic flying school operating Saab Safirs, and an advanced school using Vampire trainers for jet conversion. These Vampire T.55s had bright red phosphorescent paint applied to the nose, wing tips and tail booms. A second batch of 15 updated T.55s, 28441-455, were ordered in 1955, but these were designated Sk.28C-2s, the earlier T.55s becoming Sk.28C-1s. Some of the latter received a new lease of life in late 1956 when authorisation was given to convert the 20 C-1s to C-2 standard. In fact only 12 received the modifications, which included new front fuselages supplied by the Chester factory. De Havilland called them a T.55A, the RSwedAF the Sk.28C-3 and gave them new serials, 28456-467. This is actually 14 so it looks as if two were built up from supplied parts. In 1968 the surviv-





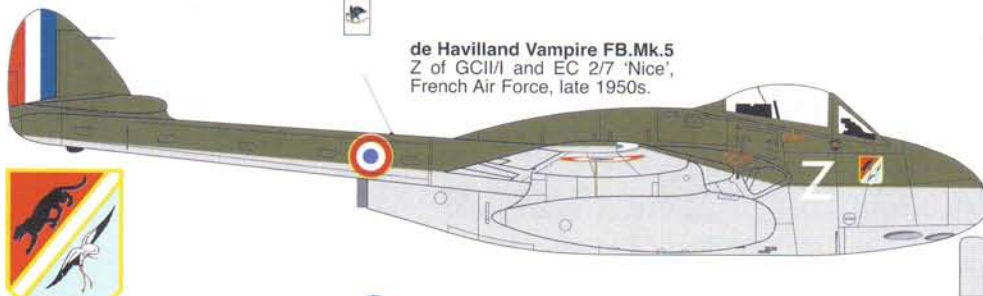
Location of upper and lower wing insignia, French Air Force

SNCASE Mistral 100161:8-PE of EC 1/8 'Maghreb' in the mid-1950s.



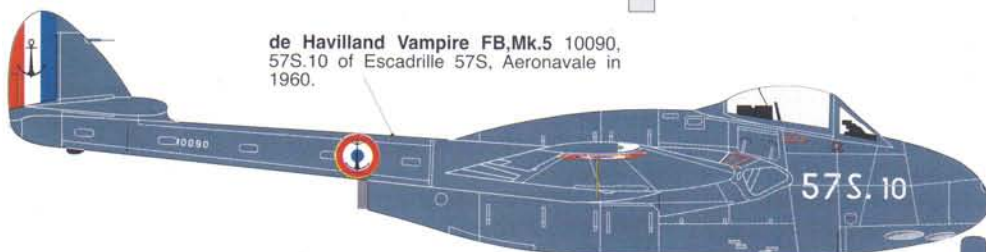
Badge of EC 1/8

de Havilland Vampire FB.Mk.5 Z of GCII/1 and EC 2/7 'Nice', French Air Force, late 1950s.

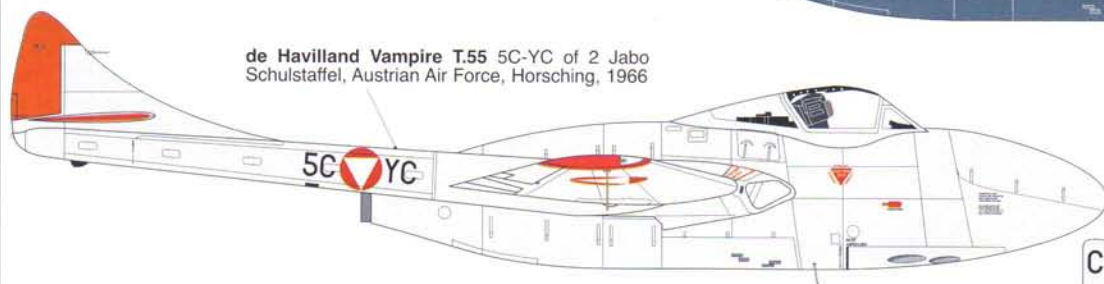


Badge of EC 2/7

de Havilland Vampire FB.Mk.5 10090, 57S.10 of Escadrille 57S, Aeronavale in 1960.

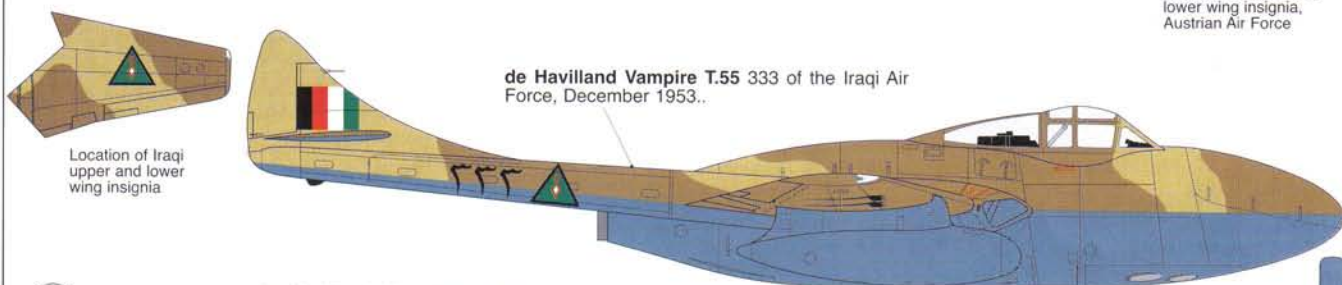


de Havilland Vampire T.55 5C-YC of 2 Jabo Schulstaffel, Austrian Air Force, Horsching, 1966



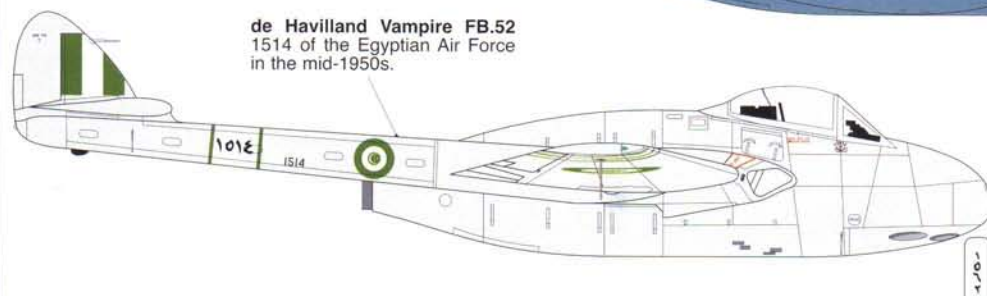
Location of upper and lower wing insignia, Austrian Air Force

de Havilland Vampire T.55 333 of the Iraqi Air Force, December 1953.

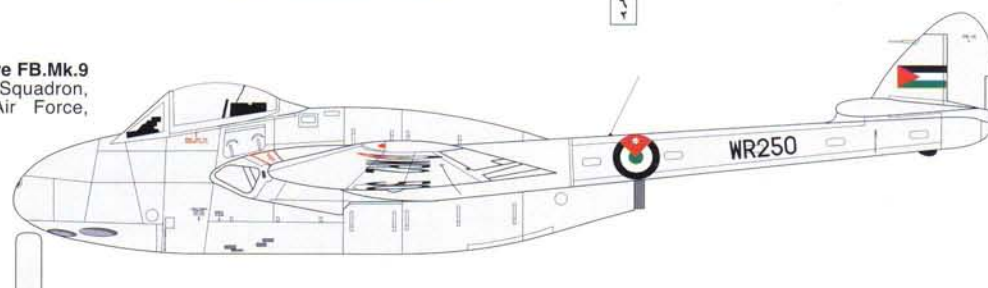


Location of Iraqi upper and lower wing insignia

de Havilland Vampire FB.52 1514 of the Egyptian Air Force in the mid-1950s.



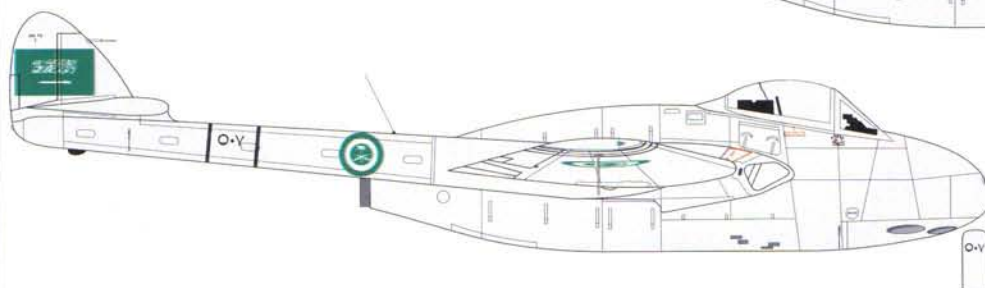
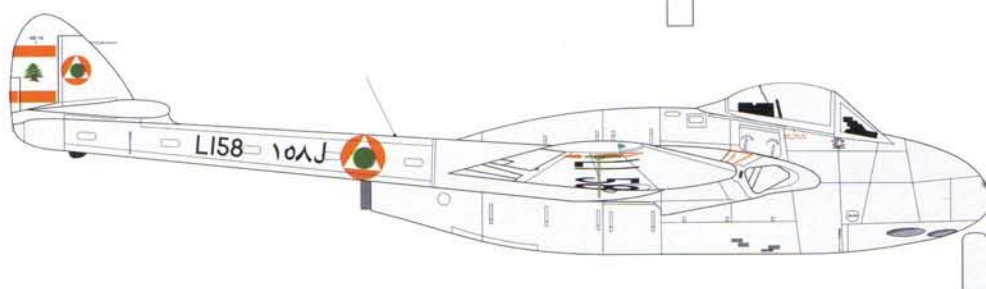
de Havilland Vampire FB.Mk.9 WR250 of No. 1 Squadron, Royal Jordanian Air Force, Amman 1955-56.





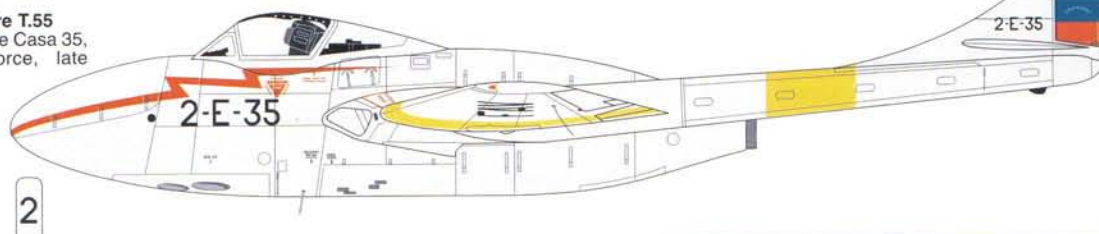
de Havilland Vampire FB.Mk.9
F608 of the Royal Jordanian Air
Force in December 1956.

de Havilland Vampire FB.52
L158 of No. 1 Squadron,
Lebanese Air Force, Beirut, May
1958



de Havilland Vampire FB.52 507
of No. 5 Squadron Royal Saudi Air
Force, Jeddah 1957-58

de Havilland Vampire T.55
2-E-35 of Escadron de Casa 35,
Venezuelan Air Force, late
1950s.



2

ing Sk.28Cs were replaced by SAAB 105s with any remaining Vampires being scrapped or passed on to museums.

Switzerland

The Swiss Air Force was one of the most prolific users of the Vampire, operating them for 45 years! A Swiss technical delegation visited the UK in October 1945 and a similar group in March 1946, all agreed the Vampire would meet their needs. Ever careful, they recommended an evaluation first and three Vampire F.Mk.1 fighters were procured for the trials. The first, J-1001, was delivered by John Cunningham on 29 July 1946, only to be written off on 2 August taking off from Dubendorf. J-1002 was delivered with J-1001 and continued the trials. J-1004, a replacement for J-1001, went to Boscombe Down between October 1946 and July 1947 to test and clear the Mk.8 Type 14 rocket projectile equipment. These three Vampire F.1s remained in use with the Swiss AF until 10 April 1961.

An order for 75 Vampire FB.Mk.6s, J-1005-1079, was placed at the end of 1948. It was May 1950 by the time the first wing of FB.Mk.6s was declared operational. The first, J-1005, had been flown to Emmen on 1 April 1949, and the last two, J-1078 and J-1079 in May 1950. A follow-on order was placed for 100 Vampire FB.Mk.6s, J-1101-1200, early in 1949, but these were to be

built under licence by the Federal Aircraft Works (F+W) at Emmen.

Construction of the Vampires was subcontracted out with the fuselages built by Pilatus, and wings, engine nacelles and fuel tanks at the Aircraft Factory Altenrhein, all being delivered to Emmen for final assembly. Goblin engines were supplied by de Havilland but flown to Switzerland in Swiss Air Force Junkers Ju 52s.

The ex-company prototype Vampire NF.10, G-5-2, was acquired early in 1951, and as J-1301, was used for air radar and operator techniques development. It was later used as a test bed for electronic, navigation and radio equipment and ended its

days as a ground instructional machine in the early 1960s.

Three Vampire T.11s, U-1001-1003, were ordered for training evaluation in 1953. Supplied as kits, the aircraft were assembled at Emmen between September 1953 and January 1954. Seven further T.11s, U-1004-1010, were ordered with production shared by de Havilland and F+W, with final assembly at Emmen. These being fitted with ejection seats. Twenty Vampire T.55s, U-1011-1030, were built under licence at Emmen and delivered between July 1958 and June 1959. By then all Vampire trainers had been re-serialised U-1201-1230. In 1967 some ex-RAF Vampire T.11s became available and



Many Vampires ended their days as maintenance airframes, such as this F.Mk.1 7203M, previously TG349, at Hereford in August 1961. (Authors collection)

Vampire FB.5 7630M in use at 14 MU at Carlisle in 1963 as an instructional airframe. (MAP)

the Swiss Air Force bought nine. These machines, WZ570, XD440, XD544, XD594, XD608, XH301, XH308, XJ773 and XK636, were delivered to Emmen by road where all were completely refurbished to T.55 standard and delivered by November 1969.

Venoms took over the fighter role in 1954, with the Vampires being modified to operate as fighter-bombers using various combinations of bombs and up to 16 R/Ps. Before this in 1960, all the single-seat Vampires and the three early standard T.11s were required to meet new safety rules or discontinue flying. Consequently, they received pressurised cockpits, new reinforced single-skin canopies and Martin Baker Mk.2F/V ejection seats. Also in 1960, three further FB.Mk.6 aircraft, J-1080-1082, were assembled from parts held at Emmen as spares. In 1971 55 (plus another four in 1974) of the Vampire FB.Mk.6 fleet received avionic updates and new UHF radio equipment which was mounted in a re-profiled nose, similar to the Venom.

Various Vampire T.55s were allotted for equipment improvement programmes; U-1203 flew on ECM (Electronic Counter Measures) duties between 1966 and 1979; U-1201 and 1202 were modified in 1968 to carry AS-11 missiles; cameras were mounted in the nose of U-1211 to 1218 for film work with TV and Swiss Air Force public relations departments.

All single-seat Vampires were relegated to



training duties with the arrival of the first Hunters in 1968. Twelve FB.Mk.6 aircraft were released in 1978 to join Zielfliegerkorps 5 (Aerial Target Corps) for target duties with anti-aircraft units. These were painted in a dazzling red and black striped colour scheme on both upper and lower fuselage and wing surfaces, but not on the booms or tail surfaces.

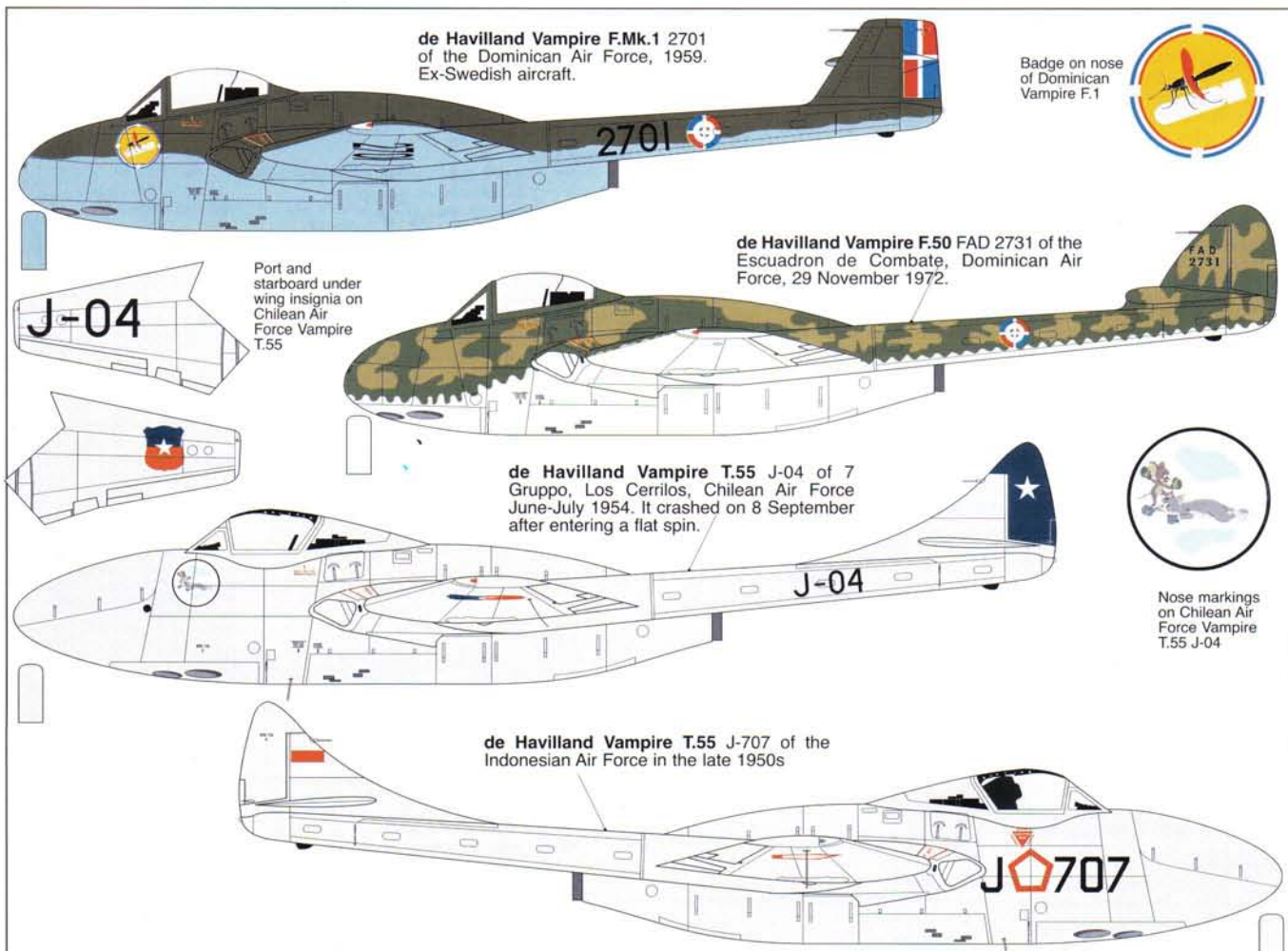
On 12 June 1990, when the Vampire was officially retired, there were still 59 single-seat and 30 trainers on strength. Many of these found their way onto the civil market including three, U-1212/G-DHWW, U-1214/G-DHVV and U-1215/G-DHZZ, to Lindsay Wood Promotions in the UK; J-1172 had been released some time earlier for the Manchester Air and Space Museum; J-

1108 joined the Mosquito Aircraft Museum at Salisbury Hall; Sandy Topen of Cranfield acquired J-1167 and displayed it as VZ304 with shark teeth insignia; Kermit Weeks of the USA bought J-1102 and U-1234 and three were sold to the Scandinavian Historic Flight and re-registered J-1184/SE-DXY, U-1221/SE-DXV and U-1236/SE-DXX. One Vampire T.55, U-1216 was presented to the RAF Benevolent Fund and serialled ZH563.

Syria

Controversy surrounds the actual numbers of Vampires Syria received. In 1955 18 Vampire FB.52s, ex-Italian Air Force were supposedly delivered to Egypt, but apparently not all ended up in that country. The

Continued on page 80



Preserved Vampires around the world

Australia

T.22 XG770 ex-N6-770 and XG776 Australian War Memorial, Canberra.
 FB.31 A79-375 Australian Navy Museum, Nowra.
 T.35 A79-661 Bankstown Aviation Museum, NSW.
 F.30 A79-4 Camden Museum of Aviation, NSW.
 FB.31 A79-165 Dubbo Military Museum, NSW.
 F.30 A79-1 Fighter World, NSW
 T.35A A79-822 and T.35 A79-612, 623, RAAF Wagga Wagga Museum, NSW.
 F.30 A79-89 Aviation Military Museum, Beck Collection, Mareeba.
 F.30 A79-476 and T.35A A79-828 Queensland Aviation Museum, Brisbane.
 T.35 VH-HLF/A79-636 Classic Jet Fighter Museum, Parafield
 T.11 R4221 Ex-Zimbabwe
 T.35 A79-602 Lincoln Nitschker Military and Historical Aircraft Collection, Greenock.
 FB.31 A79-202 South Australia Aviation Museum.
 7 bought from Zimbabwe

Austria

T.11 5C-VF/XH320

Belgium

T.11 XH292 Musee Royal De L'Armee , Brussels. Ex-Finish MT-11

Burma

T.55 UB503 Defence Services Museum, Yangon.

Canada

F.1 TG372 and F.3 17074 National Aviation Museum, Ottawa.
 F.3 17058/N6860D Canadian Museum of Flight and Transportation, BC, Canada. Displayed as 17012
 F.3 17020/N6863D and 17071/N6883D, Reynolds Aviation Museum, Alberta.
 F.3 CF-RLK/N6877D Aerospace Museum of Calgary, Alberta.
 FB.6 J-1145 Canadian Warplane Heritage Museum, Ontario.

Chile

T.22 J302 /XD614 Gate guard, Los Condores air base
 T.22 J304 /XE857 Corro Moreno
 T.22 J305 /WZ512 Chilean National Aeronautical Museum, Los Corrillos.
 T.22 J306 and J307 Museo Nacional De Aeronautica De Chile, Santiago.

Czech Republic

FB.6 Identity unknown. Historicky Ostar Armady Ceske Republiky-
 Letecke Muzeum, Kbely.

Dominica

J-28A/F.Mk.1 2714 and FB.50 2741 Coleccion De La Fuerza Aereo Dominicana, Santa Domingo.
 J-28B/FB.50 28176 Coleccion De La Base Aereo Mariscal Sucre, Boca Del Rio.

Finland

FB.52 VA-2/VO692 Suomen Ilmailumuseo, Helsinki.
 FB.52 VA-6/VO696 Keski-Suomen Ilmailumuseo, Tikkakoski.
 T.55 VT-8 Aviation Museum of Central Finland, Luonetjärvi.
 T.55 VT-9 Suomen Ilmailumuseo, Helsinki.

France

FB.5 VX950 Musee d' Aviation du Mas Palegry, Perpignan. Cockpit on display
 FB.52 IB427 M.Betrancourt, Albert.
 FB.6 F-AZHH Caen/Carpique. Ex-Swiss AF J-1199
 FB.6 F-AZHI Rennes/St.Jacques, Ex-Swiss AF J-1143
 FB.6 F-AZHJ Association Varoise de Aviaons de Collection. Ex-Swiss AF J-1159
 FB.6 F-AZHX at Le Havre. Ex-VZ152 and Swiss AF J-1115
 FB.6 F-AZHY DY-6 Rennes/St.Jacques. Ex-Swiss AF J-1101
 FB.6 F-AZIK Melun/Villaroche. Ex-Swiss AF J-1191
 FB.6 F-AZOO/1-0017 Private collection at Triors. Ex-Swiss AF J-1127
 FB.6 F-AZOP Melun/Villaroche Ex-Swiss AF J-1192
 FB.6 10035 5-NT Gate at Orange Caritat.
 FB.6 Les Amis de la 5eme EC, Orange.
 FB.6 Musee de l' Air et de l' Espace, Le Bourget. Ex-Swiss AF J-1155
 FB.6 Association des Amis du Musee du Chateau Savigny-les-Beaune. Ex-Swiss AF J-1178
 FB.6 Private Collection, Triors. Ex-Swiss AF J-1122
 T.11 XD613 Musee Europeen de l' Aviation de Chasse, Montelimar/Ancone.
 T.11 XE950 Ailes Anciennes-Toulouse, Toulouse/Blagnac.
 T.55 F-AZGU At Cannes/Mandelieu. Ex-Swiss AF U-1229
 T.55 F-AZHU At Rennes/St. Jacques. Ex-Swiss AF U-1210
 T.55 F-AZHV At Rennes/St. Jacques. Ex-Swiss AF U-1223
 T.55 185 Association des Amis du Musee du Chateau Savigny-les-Beaune.
 T.55 Les Amis de la 5eme EC, Orange. Ex-Swiss AF U-1227
 Mistral 4/7-CE Musee de l'Air et de l' Espace, Paris/Le Bourget
 Mistral 50/7-BM Ailes Anciennes Armorique, Vannes/Meucon
 Mistral Remains, unidentified, at Etampe/Mondesar

Germany

FB.6 J-1068 International Luftfahrtmuseum, Manfred Pflumm, Villingen.
 FB.6 J-1081 Technikmuseum Speyer, Speyer. Ex-Swiss AFNF

India

FB.52 IB799 Vintage Aircraft Flight, Palem.
 NF.54 ID606 Indian AF Museum. Ex-WV690.
 NF.54 Indian AF Historic Flight

Indonesia

T.11 J-701 Museum Pusat Tni-Au, Lanud Adisutjipto, Yogyakarta. Ex-XH266, NZ5708, INST.204

Ireland

T.55 187 South East Aviation Enthusiast Group, New Ross, Wexford.

T.55 191 Irish Air Corps Museum, Gormanston airfield.
 T.55 192 South East Aviation Enthusiast Group, New Ross, Wexford.
 T.55 198 IAC Museum, outside officers mess, Baldonnell, Dublin.

Israel

T.55 0053 (ex-Venezuela AF).
 FB.5 1839 Israeli AF Museum, Hatzetim Air Base, nr Beersheba.
 FB.6 J-1139 Israeli AF Museum, Hatzetim Air Base, nr Beersheba.
 T.55 ? Israeli AF Museum, Hatzetim Air Base, nr Beersheba.

Italy

FB.6 J-1170 Raccolta Della Base Di Rivolta, Udine. Ex-Swiss AF
 FB.6 ? Ex-Swiss AF and the following all stored at Museo Storico Dell'Aeronautica Militaire Italiana, Valle.
 FB.52A MM6014, plus parts from MM602.
 FB.52A MM6042, MM6083, MM6125 plus parts from other aircraft.
 NF.54 MM6152
 FB.52A MM6112 Museo Nazionale Della Scienza E Della Techica, Milan.

Japan

T.55 63-5571/G-5-14 Hamamatsu Air Base Collection

Malta

T.11 WZ550 (painted as RN T.22 at Hal Far) Malta Aviation Museum, Valletta.

Mexico

F.3 FAM-5 Office of the Secretary of Defence, Mexico City.
 F.3 17012 Coleccion De La Base Aerea 5, Zapopan.

New Zealand

FB.5 NZ5757 RNZAF Museum, Wigram.
 FB.5 NZ5765 RNZAF Te Rapa.
 FB.5 NZ5772 RNZAF Ohakea.
 T.11 NZ5707 Wigram, privately owned.
 T.35 A79-649 airworthy.

Norway

F.3 P42408 BA-E Stored at Gardermoen. Ex-VT833.
 F.3 P42459 BA-H Norsk Teknisk Museum, Oslo. Front fuselage only.
 FB.52 PX-H Norsk Teknisk Museum, Oslo.
 FB.52 VO184 B-Bi Luftfartsmeet, Oslo.
 T.55 Fv28456 Forsvarsmuseet, Akershus, Oslo Ex- Swedish.
 T.55 U-1217 Flyhistorisk Museum Sola, Stavanger. Ex-Swiss AF.
 FB.6 LN-17 Oyvind Ellingsen, Scandanavian Historic Flight, Gardermoen Air Base, Ex-Swiss J-1146

Portugal

FB.52 5801 Museo Do Ar, Averca. (ex-SAAF 248)

Rhodesia - see under Zimbabwe.

Saudi Arabia

FB.52 505 Prince Abdullah Air base, Jeddah.
 FB.52 514 Prince Abdullah Air Base, Jeddah.
 FB.52 515 Traffic island in North Jeddah.

South Africa

FB.5 205 and 207 SAAF Museum, Port Elizabeth
 FB.52 208 SAAF Museum, Ysterplaat.
 FB.52 219 SAAF Swartkop.
 FB.52 227 Gate guard at SAAF Staff College.
 FB.52 229 Atlas Aircraft, Bonaero park.
 FB.52 241 SAAF Museum, Ysterplaat.
 FB.52 254 SAAF Swartkop.
 T.11 R4032 SAAF Swartkop (ex-Zimbabwe AF)
 T.55 221, 222, 271, SAAF Swartkop.
 T.55 277 SAAF Museum, Lanseria plus others which may be 224, 256, 267, 271, 276.

Sweden

F.1 Fv28001 Flygvapenmuseum Malmen, Linköping.
 FB.6 SE-DXY/J -1184 Scandinavian Historic Flight, Foreningen Veteranfly Norrköping.
 FB.50 Two unknowns on show at High Chaparrel, Hillerstorp.
 FB.50 Fv28307 Svedinos Bil Och Flygmuseum, Sloinge.
 FB.50 Fv28311 and Fv28317 Flygvapenmuseum Malmen, Linköping.
 T.55 Fv28451 Flygvapenmuseum Malmen, Linköping.
 T.55 Fv28444 Svedinos Bi Och Flygmuseum, Sloinge.
 T.55 SE-DXV/U-1221 Scandinavian Historic Flight, Swedish Wing, Ljungbyled.
 T.55 SE-DXX/U-1236 Scandinavian Historic Flight, Swedish Veteran Wing Museum, Vasteras.

Switzerland

FB.6 J-1190 on display at Sion. J-1080 and J-1103 stored.
 FB.6 J-1107 and J-1153 Fliegermuseum, Dubendorf.
 FB.6 J-1055 Musee Militaire Vaudoise, Morges.
 FB.6 J-1068 Verkehrshaus Der Schweiz, Lucern.
 FB.6 HB-RVA/J-1082 Wildhaber Sammlung.
 T.55 HB-RVF/J-1208 at Altenrhein.
 T.55 U-1222, U-1235, and U-1239 stored at Sion.
 T.55 U-1203, U-1205, U-1224 Fliegermuseum, Dubendorf.

United Kingdom

F.1 VF301:RAL-G Midland Air Museum, Coventry.
 Ex-7060M/208AFS/595/226OCU
 F.3 VT812:N RAF Museum, Hendon. Ex-7200M/602/601/614/32
 F.20 LZ551:G FAA Museum, Yeovilton. Ex-RAE/A & AEE/deH/CS(A)
 FB.5 VX461 RAF Museum. Stored at Cosford. Ex-7646M/8FTS/16/26
 FB.5 VV217 North East Aviation Museum, Ex-7323M/deH

FB.5	518	North East Aviation Museum, Ex-5 FTS/Oldenburg SF/2TAF Conversion Flight/14 Sqd.	T.11	XE856	G-DUSK HCR & Sons. Restoration at RAF Henley. Ex-219 Sqd/North Weald SF/226 OCU
FB.6	J-1008	South Yorkshire Aviation Museum, Doncaster. Ex-229OCU de Havilland Heritage Museum, London Colney. Ex-SwissAF	T.11	XE864	Military Aircraft Cockpit Collection, Welshpool. Ex-8 FTS/7 FTS/1 ANS/CFS/4 FTS. Fitted with wings from XD435.
FB.6	G-SWIS	Stored at Bournemouth. Ex-SwissAF J-1149	T.11	XE874:61	Montrose Air Station Museum. Fitted with booms off XD528.Ex-1 FTS/4 FTS/8 FTS/4 FTS/1 FTS/4 FTS/7 FTS
FB.6	J-1172	RAF Museum, Stored. Ex-8487M/Swiss Air Force	T.11	XE897	Private owner, Errol, nr Perth. Really XD403. Ex-4 FTS/1 FTS/7 FTS/8 FTS/5 FTS/4 FTS
FB.6	VT871	G-DHXX Source Classic Jet Flight, Bournemouth. Painted up as LZ551:G. Ex-Swiss AF J-1173	T.11	XE920	G-VMPR de Havilland Aviation, Swansea. Ex-CATCS/8 FTS/5 FTS/1 FTS
FB.6	WL505	G-MKVI/VZ304, de Havilland Aviation, Swansea. Ex-Swiss AF J-1167. Stored.	T.11	XE921:64	Alan Witt, Barton Gtr Manchester. Ex-3/4 CAACU/1 FTS/CFS
FB.6	109	G-BVPO Jordon, Bournemouth	T.11	XE935:30	South Yorks Aviation Museum, Firbeck. Ex-8 FTS
FB.6		Two pods at deHavilland Ltd, Bridgend, nr Cardiff.	T.11	XE946	Cranwell Aviation Heritage Centre. Ex-7473M/Habbaniya SF/Nicosia SF
FB.9	WL505	G-FBIX de Havilland Aviation, Bridgend. Ex-19 Sqd/RAFC/73 Sq	T.11	XE956	G-OBLN de Havilland Aviation, Swansea. Ex-CATCS/1 FTS/8 FTS/3 CAACU/APS/67 Sqd
NF.10	WM729	Gloucester Aviation College/The Jet Age Museum, Gloucester Airport. Ex-CNCS/2ANS/25 Sqd/151 Sqd	T.11	XE977	198, Irish Air Corp Museum, Casement, Dublin. Ex-8 FTS
NF.10	WP255	South Yorkshire Aviation Museum, Doncaster. Ex-27MU/CNCS/1ANS/CNCS/23 Sqd	T.11	XE979	Graham Revill, Birlingham, Worc. Ex-1 FTS/8 FTS/RAFC
T.11	WZ425	Graham Revill, Birlingham. Ex-5 FTS/ RAFC/ 229 OCU/CGS	T.11	XE982	Dunkeswell Memorial Museum. Ex-7564M/ RAFC.
T.11	WZ450	Lashenden Air Warfare Museum. Ex-RAFC/233 OCU/202 AFS.	T.11	XE985	de Havilland Aviation, Swansea. Ex-5 FTS
T.11	WZ507	G-VTII de Havilland Aviation, Swansea. Ex-CATCS/3/4 CAACU/5 FTS/8 FTS/229 OCU	T.11	XE993	War game target, field nr J3 of M54. Ex-8161M/8 Sqd/73 Sqd
T.11	WZ514	Parts in Bootle	T.11	XE995:53	Richard Hukins, High Waldon, Ashford, Kent. Ex-19 MU/8 FTS/ 5 FTS/32 Sqd.
T.11	WZ515	Solway Aviation Museum, Carlisle Ex-4 FTS/8 FTS/56 Sqd/253 Sqd/ 16 Sqd.	T.11	XE998	Brooklands Aviation Museum. Ex-U-1215 Swiss AF/8 FTS/ 4 FTS/8 FTS
T.11	WZ518	North East Aviation Museum, Ex-5 FTS/Oldenburg SF/2 TAF Comm Flight/14 Sqd	T.11	XH278:42	David Thompson, Felton, Alnwick. Ex- Henlow 8595M/Upwood 7866M/27 MU/RAFC
T.11	WZ549 :F	Ulster Aviation Heritage, Langford Lodge Airfield, Nr Belfast. Ex-8118M/CATCS/1 FTS/8 FTS/7 FTS/202 AFS Stored.	T.11	XH312:18	Location unknown, Chester area. Ex-8 FTS
T.11	WZ553:40	G-DHYI. Source Classic Jet Flight, Bournemouth. Ex-4 FTS/7 FTS/202 AFS Stored.	T.11	XH313:E	Imperial Aviation (Sandtoft) Ltd, Sandtoft. Ex-CATCS/Wattisham SF/111 Sqd
T.11	WZ557	North Yorkshire Aircraft Recovery Centre Museum, Great Ayton, Yorks. Ex-5 FTS/16 Sqd	T.11	XH328	Bournemouth Aviation Museum. Ex-3 CAACU/60.
T.11	WZ572:65	Private Southampton site – pod only.	T.11	XH330:76	Parkhouse Aviation, Camberley. Ex-RAFC
T.11	WZ581:77	The Vampire Collection, St.Albans. Ex-3/4 CAACU/229 OCU/233 OCU/25 FTS/8 FTS/RAFC/RNORAF 15018 XP-G	T.11	XJ772:H	de Havilland Heritage Museum, St.Albans Ex-CATCS/1 FTS/ 8 FTS/ RAFC/RNORAF 15018 XP-G
T.11	WZ584:E	Imperial Aviation (Sandtoft) Ltd, Sandtoft. Ex-CATCS/1 FTS/ 2CAACU/32 Sqd.	T.11	XK590:V	Wellesbourne Wartime Museum, Warks. Ex-CATCS/7 FTS/7 FTS
T.11	WZ589:19	Lashenden Air Warfare Museum. Ex-56 Sqd	T.11	XK623:56	G-VAMP Caernarvon Air World, North Wales. Ex-5 FTS
T.11	WZ590:19	Imperial War Museum, Duxford. Ex-8 FTS/5 FTS/228OCU	T.11	XK624:32	Norfolk & Suffolk Aviation Museum, Flixton. Ex-CFS/3 FTS/7 FTS/1 FTS/23 Grp Comm Flight/CFS/7 FTS
T.11	WZ608	The Cockpit Collection, Rayleigh, Southend. Ex-3 CAACU/5 FTS/266 Sqd/Fassberg SF/11 Vampire Flt/5Sqd/Wunsdorf SF/266 Sqd. Cockpit section only.Wings on WZ518.	T.11	XK625:12	Brenzett Aeronautical Museum Trust. Ex-8 FTS/7 FTS. Pod only.
T.11	XD377:A	South Yorkshire Aviation Museum, Firbeck. Ex-8203M/66 Sqd	T.11	XK627	Alan Witt, Barton Gtr Manchester. Ex-8 FTS/CFS
T.11	XD382	Anchor Surplus, Ripley. Ex-8033M/CATCS/CNCS/RAFC/5 FTS/206 AFS/208 AFS.	T.11	XK632:67	2370 Sqd ATC Denham. Ex-3/4 CAACU/CFS Pod only.
T.11	XD403	See under XE897	T.11	XK637:56	RAF Millom. Ex-4 FTS/7 FTS
T.11	XD425:M	RAF Millom, Haverrig. Ex-8 FTS/5 FTS/7 FTS/202 AFS.	T.11	XA109	See under XE977
T.11	XD434 25	Fenland and West Norfolk Aviation Museum. Ex-5 FTS/7 FTS	T.22	XA109	Museum of Flight, East Fortune. Ex-831/JOAC
T.11	XD435	South Yorks Air Museum, Reduced to spares. Wings on XE864.	T.22	XA127	FAA Museum. Stored. Ex-CIFE/736 Sqd
T.11	XD445:51	Bomber County Aviation Museum, Hemswell. Ex-4 FTS/5 FTS/Buckberg SF	T.22	XA129	FAA Museum. Ex-CIFE/736 Sqd
T.11	XD447:50	Jet Aviation Preservation Group, Long Marston, Worc. Ex- 8 FTS/RAFC/5 FTS	T.22	XG743:597	IWM, Duxford. Being restored by Wymondham College Aircraft Restoration Group. Ex-Brawdy SF/736/764
T.11	XD452:66	Ian Starnes, RAF Sealand, Clyd, North Wales. Ex-7990M/3 FTS/7 FTS/1 FTS/8 FTS/5 FTS	T.22	G-SPDR	XG766, de Havilland Aviation, Swansea. Ex-VH-RAN(ntu)/RAN N6-766
T.11	XD459:63	Private owner, Bruntingthorpe. Ex-3/4 CAACU/229 OCU/OCU/151 Sqd/253 Sqd/56 Sqd. Pod only.	T.55	G-BVLM:209	Jordon, Bournemouth.
T.11	XD463	Was with Anchor Surplus at Ripley but sold to local restaurant.	T.55	G-DHAV	XH308 de Havilland Aviation, Swansea. Ex-RAFC/Ex-U-1234 Swiss AF
T.11	XD506	Gloucestershire Aviation College/The Jet Age Museum. Ex-7983M/CATCS/CNCS/5 FTS/206 AFS	T.55	G-DHVV/XE897	Source Classic Jet Flight, Bournemouth. Ex-U-1214 Swiss AF
T.11	XD515	Private owner, Rugeley, Staffs. Ex-7998M/3 FTS/7 FTS/1 FTS/5 FTS/206 AFS	T.55	G-DHWW/XG775	Classic Jet Flight, Bournemouth. Ex-U-1219 Swiss AF. Painted up as Sea Vampire T.22 RN FOFT
T.11	XD525	REME Kinegar Camp, Co Down. Ex-7882M/Aldergrove SF/1 FTS/4 FTS/5 FTS/7 FTS	T.55	G-DHZZ/WZ589	Source Classic Jet Flight, B



1

de Havilland Vampire in detail

The Vampire featured in these two In Detail pages is FB.Mk.5 VZ304:A-T refurbished by Sandy Topen as a No.112 Squadron aircraft and now kept at Broughton, Leicestershire

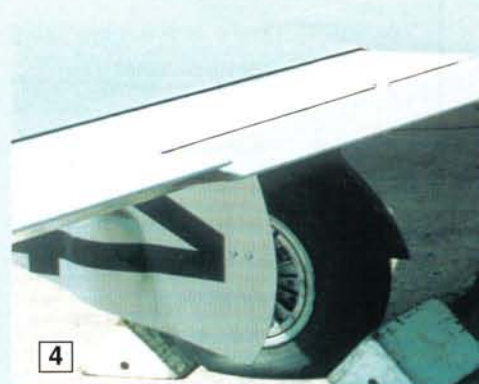
1. Front fuselage of the Vampire FB.5 showing the nosewheel assembly and doors, the cockpit and air intakes. Adjacent to the air intake is a small opening which is the cold air unit intake. Just visible lower left are the gun bay doors. 2. Close up detail of the nosewheel area on a Vampire FB.5. Note that the tyre is solid rubber. (All pictures Alan W. Hall)



2



3



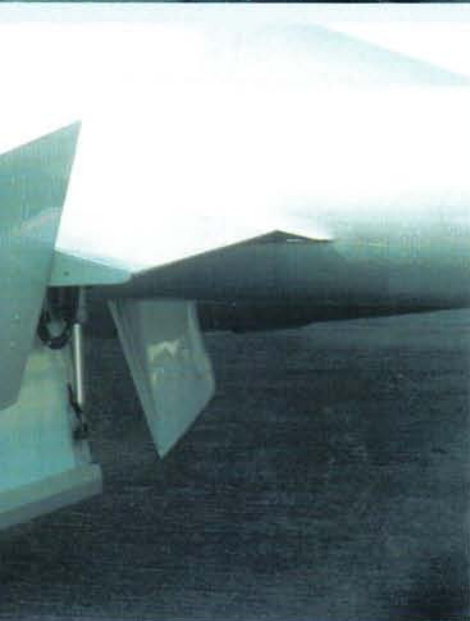
4



5



3. Good detail view of flaps in the down position on the Vampire FB.5. High right is the airbrake. 4. Vampire FB.5 ailerons, with balance tab, air brake and flaps. 5. The familiar tailplane of a Vampire FB.5 showing the 'acorn' or 'bullet' fairing the boom to the tail. The small rubber buffers under the rear of the boom are to prevent damage if the aircraft is rotated too smartly, or after landing when the nose should be kept high to present the maximum airframe area to assist with aerodynamic braking.



6. and 7. Two views of the Vampire FB.5's main undercarriage leg, bay, doors and area. 8. Jet pipe exhaust at the rear of the fuselage pod.



Vampire manufacturers

The de Havilland Aircraft Co. Ltd at Hatfield Herts. Hawarden, Chester and Christchurch, Hants.
 The English Electric Co Ltd, Preston, Lancs
 The Fairey Aviation Co Ltd, Ringway, Manchester, Lancs.
 de Havilland Aircraft Pty. Ltd, Bankstown, Sydney, NSW, Australia
 Hindustan Aircraft Ltd, Bangalore, India
 Aeronautica Macchi SA, Varese, Italy
 Societa per Azioni Fiat, Turin, Italy
 Societe Nationale de Constructions Aeronautiques du Sud-Est, Marignane, Marseille, France
 Pilatus Flugzeugwerke AG, Stans, Switzerland
 Swiss Federal Aircraft Plant, Emmen, Switzerland
 Flug und Fahrzeugwerke AG, Altenrhein, Switzerland

Vampire T.11 XD382 in a poor state, resides 'up the pole' at Anchor Surplus, Ripley, Derbyshire. The engine lies rusting away on the ground underneath. (Authors collection)

Italians revealed that in 1954 they had received an order from Syria for 13 Vampire FB.52s and it was these, probably staging through Syria to Egypt, that were retained. In 1956 another 10 ex-Italian Air Force FB.52s, reconditioned by Macchi, found their way to Syria. Later that year, two Vampire T.55s, serialised 493 and 494, and destined for Syria were held at Hatfield on embargo instructions from the UK Government. They were never released and broken up at Hatfield some years later.

Venezuela

In 1949 the Fuerza Aerea Venezolana (FAV) ordered 24 Vampire FB.Mk.5s to replace its P-47 Thunderbolts. Shipped out, the Vampires were reassembled at Maiquetia and then moved to Boca de Rio for test flying, with all work completed by 1952. Conversion from piston engined fighters to single-seat jets was a big change, so a Vampire T.55, serialised 23/A/36, was ordered for evaluation. Five new T.55s were ordered, 2/E/35 to 6/E/35, to provide jet con-



version and weapons training, with the original T.55 being re-serialised 1/E/35. The five T.55s were shipped from Liverpool Docks in May 1958.

Earlier that year the FB.Mk.5s had been in action, losing one to ground fire, when a pre-empted coup was thwarted. They were in other small actions during the year suppressing odd attempts at overthrowing the government. During July 1961 other aircraft

types joined the FAV and all aircraft serial numbers were changed from letters and numerals to four number codes, with the T.55s changing from 1/E/35 to 0023, 2/E/35/0053, 3/E/35/0055, 4/E/35/7029 and 5/E/35 became 7060.

All Vampires were withdrawn from service in 1972 with a few finding homes at bases or museums, and T.55 0053 being donated to the Israeli Air Force Museum.

de Havilland Vampire Specifications

Model	Engine	Span (ft)	Length (ft in)	Height (ft in)	Weight lb	AUW (lb)	Max speed (mph)	Range (miles)	Ceiling (ft)
Vampire (Proto)	Goblin 1	40	30 9	9 0	5,898	8,000	490	580	
Vampire F.1	Goblin 2	40	30 9	8 10	6,372	10,298	540	730	40,000
Vampire F.1*	Ghost 2/2	48	30 9	8 10					
Vampire F.2 & IV	Nene 1	40	30 9	8 10	7,762	13,448	575	1,118	49,000
Vampire F.3	Goblin 2	40	30 9	8 10	7,134	11,970	531	1,050	43,500
Vampire FB.5	Goblin 2	38	30 9	8 10	7,253	12,360	535	1,145	40,000
Vampire FB.6	Goblin 3	38	30 9	8 10	7,283	12,390	548	1,220	42,800
Vampire FB.9	Goblin 2	38	30 9	8 10	7,283	12,390	548	1,220	42,800
Vampire NF.10	Goblin 3	38	34 7	6 7	6,984	11,350	538	1,220	40,000
Vampire T.11	Goblin 3	38	34 7	6 7	7,380	11,150	538	840	40,000
Vampire F.20	Goblin 2	38	30 9	8 10	7,263	12,660	526	1,145	43,500
Vampire FB.30	Nene 2-VH	38	30 9	8 10	7,600	11,000	570	1,220	49,000
Vampire T.35	Goblin 35	38	30 9	6 7	7,380	11,680	538	787	40,000
Vampire FB.52	Goblin 3	38	30 9	8 10	7,283	12,360	548	1,220	42,800
Vampire FB.53	Nene 102B	38	30 9	8 10	7,656	12,628	568	1,220	44,000
Vampire T.55	Goblin 35	38	30 9	6 7	7,380	11,680	538	787	40,000

Armament (FB.5)

4 x 20mm Hispano cannon 600rpg 2 x 500lb (226kg) bombs; 2 x 1000lb (454kg) bombs 8 x R/P

Engine Data

Halford H.1/Goblin 1 (Prototype) 2,700lb.s.t. (De-rated to 2,300lb for first flight) Halford H.1A/Goblin 1 3,100lb.s.t. de Havilland Goblin 2 3,100lb.s.t. de Havilland Goblin 3 3,350lb.s.t. de Havilland Goblin 35 3,500lb.s.t. de Havilland Ghost 2/2 4,400lb.s.t. Rolls-Royce Nene 1 4,500lb.s.t. Commonwealth Aircraft Corp. Nene 2-VH 5,000lb.s.t. Hispano-Suiza Nene 102 5,000lb.s.t.

OTHER TITLES IN THE WARPAINT SERIES

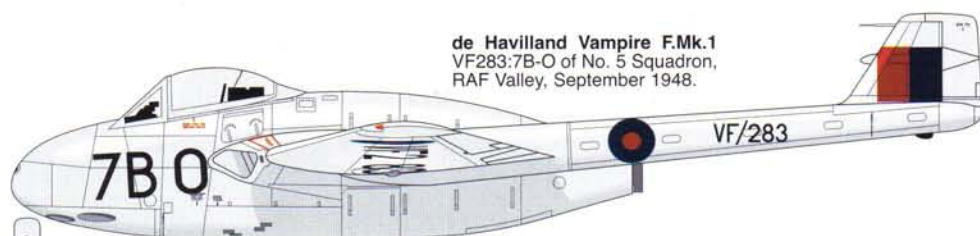
Bristol Beaufighter £6.95, Blackburn Buccaneer £7.50, Junkers Ju 87 Stuka £7.50, F-100 Super Sabre £7.50, Hawker Typhoon £7.50, Avro Shackleton £7.50, Junkers Ju 88 £7.50, Hawker Hunter £11.50, Grumman F4F Martlet/Wildcat £7.50, Vickers Wellington £7.50, DH Sea Vixen £7.50, Fairey Swordfish £8.50, Fw 200 Condor £7.50, BAC Lightning £11.50, Short Stirling £7.50, Hawker Sea Fury £7.50, Gloster Javelin £9.50, Douglas Skyraider £8.50, DH Hornet and Sea Hornet £9.50, Supermarine Seafire (Griffin engined variants £9.50, Armstrong Whitworth Whitley £8.50, Gloster Meteor £16.50, Fairey Gannet £8.50, Dornier Do 217 £8.50, Short Sunderland £9.50, Bristol Blenheim £9.50 Warpaint Special: Republic P-47 Thunderbolt £18.50

Not all titles are currently in production. Consult trade advertisements or Hall Park Books web site www.warpaint-books.com for availability.

Vampire models, decals and accessories

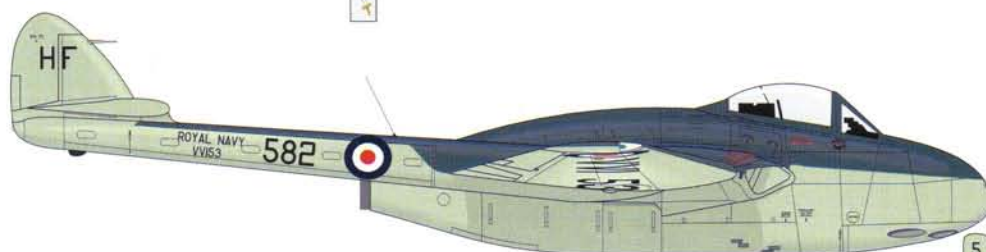
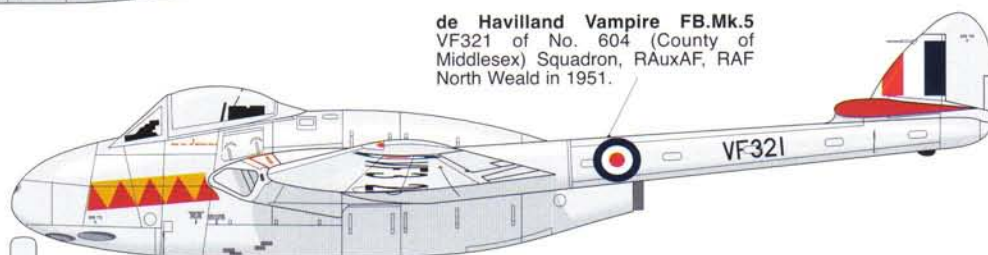
Scale	Type	Manufacturer	Number	Remarks
1:72	Vampire FB.5	Airfix	AX03064	Complete kit. RAF/Swedish decals
1:72	Vampire T.11	Aerocub	AC004	Vacuform and resin kit
1:72	Mistral	Heller	80221	Complete kit
1:72	Vampire FB.5	Heller	80283	Complete kit
1:72	Vampire FB.5	Revell	4163	Complete kit
1:72	Vampire T.11	Eduard	72019	Detail set
1:72	Vampire FB.5	Eduard	72129	Detail set
1:72	Vampire NF.10	Dekno	DEKK0600	Conversion kit
1:72	Vampire F.1	Czech Master	CMR1104	Resin kit
1:72	Mistral/Vampire	Carpenter	CA72001	Decals for French AF (Two sets)
1:72	Vampire FB.3/FB.5	Modeldecals	MD100	Decals RAF and RAuxAF
1:72	Vampire FB.3/FB.5	Modeldecals	MD101	Decals RAF and RAuxAF
1:48	Vampire	Aerocub	ABK424	Vacuform kit
1:48	Vampire F.3	Hobbycraft	HC1549	Complete kit Canadian markings
1:48	Vampire FB.9	Hobbycraft	HC1550	Complete kit Iraqi markings
1:48	Vampire F.1	Hobbycraft	HC1573	Complete kit RAF markings
1:48	Vampire FB.5/6	Hobbycraft	HC1574	Complete kit RAF/Swiss markings
1:48	Vampire NF.10	Hobbycraft	HC1578	Complete kit RAF/Italian markings
1:48	Vampire T.11	Hobbycraft	HC1579	Complete kit RAF/Swiss markings
1:48	Vampire F.1	Eduard	ED48060	Etched detail parts
1:48	Vampire FB.5	Eduard	ED48064	Etched detail parts
1:48	Vampire	Eduard	ED48066	Etched flaps for all versions
1:48	Vampire FB.5	Flightpath	FHP480952	Detail set
1:48	Vampire T.11	Max	MAX4801	Irish Air Corps decals
1:48	Vampire	Reheat	RH066	Etched detail parts
1:48	Vampire F.1/F3	Xtradecal	XO1648	Decals
1:48	Vampire FB.5/FB.9	Xtradecal	XO1748	Decals
1:48	Vampire NF.10/T.11	Xtradecal	XO1848	Decals

de Havilland Vampire F.Mk.1
VF283:7B-O of No. 5 Squadron,
RAF Valley, September 1948.



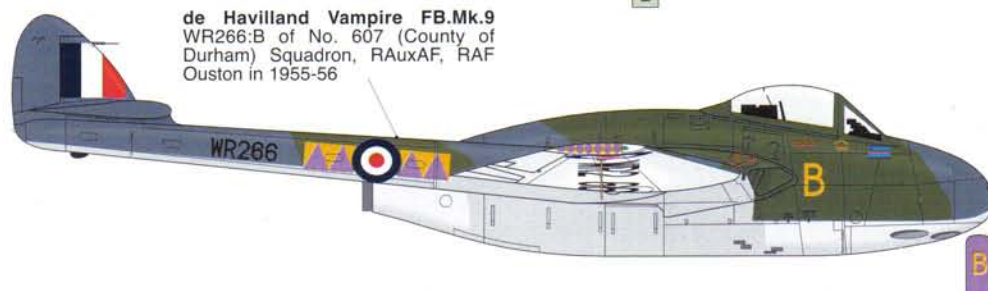
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de Havilland Vampire FB.Mk.5
VF321 of No. 604 (County of
Middlesex) Squadron, RAuxAF, RAF
North Weald in 1951.

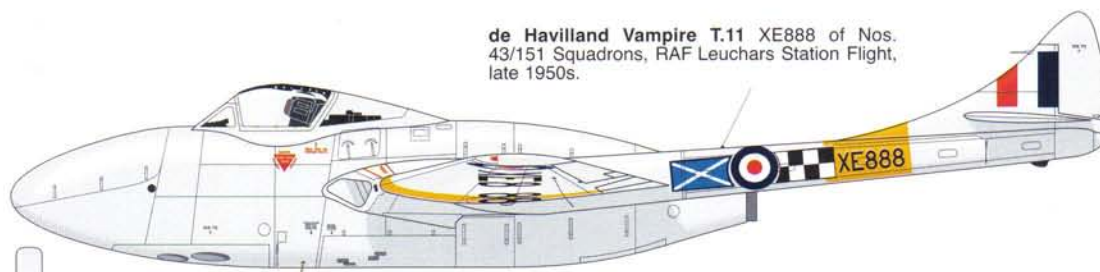


de Havilland Sea Vampire F.20
VV153:582-HF of 728
Squadron, FAA, RNAS Hal Far,
Malta in 1954.

de Havilland Vampire FB.Mk.9
WR266:B of No. 607 (County of
Durham) Squadron, RAuxAF, RAF
Ouston in 1955-56



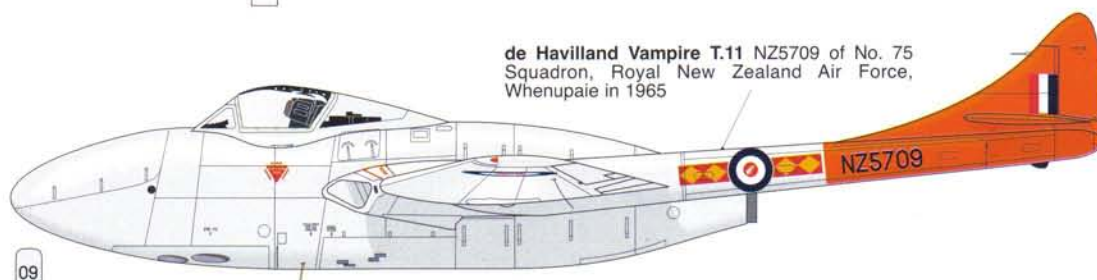
de Havilland Vampire T.11 XE888 of Nos.
43/151 Squadrons, RAF Leuchars Station Flight,
late 1950s.



de Havilland Vampire T.55 259 of the Air
Operational School, South African Air Force,
Langebaanweg in 1953.



de Havilland Vampire T.11 NZ5709 of No. 75
Squadron, Royal New Zealand Air Force,
Whenuapai in 1965



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Vampire gate guardians

Three de Havilland Vampire T.11s that found homes after their service life had been completed were (top) 7998M, which was formerly XD515, allocated to RAF Linton-on-Ouse and this picture shows it in 1968 in good condition. Centre: There's always one that breaks the rules and this T.11, unusually camouflaged remained as XD393 when acting as gate guardian at RAF Sealand in September 1963. Below: A number of Vampire T.11s were allocated to Air Training Corps squadrons throughout the country. 7890M was formerly XD453:64 and ended its days with the Salisbury squadron taking a prominent position outside their headquarters building in 1966. (All authors collection)

